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A. I. COFFIN, M.D.

Professor of Medical Botany,

Author of the Botanic Guide to Health, Treatise on Midwifery &c.

AT.

MEDICAL BOTANY:

A

COURSE OF LECTURES

DELIVERED AT SUSSEX HALL,

DURING 1850.

BY

A. I. COFFIN, M.D.,

AUTHOR OF "GUIDE TO HEALTH," "TREATISE ON MIDWIFERY," &c.
AND FOUNDER OF MEDICAL BOTANY IN ENGLAND.

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INTRODUCTION.

TO OUR FRIENDS IN GREAT BRITAIN.

We have long contemplated giving our lectures which have been so popular in many parts of this country, to the public in the form of a volume. In fact we have been for several years, from time to time requested to do so, and scarcely a week has elapsed of late that has not brought us letters urging us to the performance of the task. We now accede to the request, and were it not generally customary to give some kind of a preface we should have been tempted to have dispensed with that part of our duty, and passed it over in silence as the subjects speak for themselves. In these lectures we may justly observe we have had solely truth for our

guide, and though there may appear in its pages strong animadversions upon the medical profession, yet we earnestly request our readers not to condemn until they have heard the whole of the case, and to remember that a reformer has many difficulties to encounter unknown to the reader, more particularly a *medical reformer*. Time out of mind the medical profession have been looked upon as a class of men, who possessed secrets in which the great mass of mankind were deeply and vitally concerned, and from the respect shown them on the one hand, as well as the interest they have had in it on the other, they have taken special care to keep those secrets inviolate. Hence the doings of medical men have been generally unknown to the public at large, until it has become a proverb "*Who shall decide when doctors disagree?*" To encounter the prejudice and ignorance of the people on the one hand, and the interests of a legalised monopoly on the other, is a task of no ordinary kind, especially when it is considered that we came

to this country a *stranger*, alike "unknowing and unknown." Having in early life been educated in that same profession, and in our own case seen all their skill and knowledge applied in vain, at the same time also seen and felt the benefits of the skill and knowledge of a child of nature, we came prepared not only to expose the "fallacies of the faculty" on the one side, but to establish for the benefit of the country, the eternal truths of Medical Botany on the other. We met as was natural, even in this country, in the first part of our career, many obstacles, which of course retarded our progress, but by a steady perseverance have at last overcome them all, and at this moment stand on an eminence that we scarcely dared to have anticipated at the commencement of our labours in this quarter of the globe. During the space of six years we have had the gratification of seeing passed through the press twenty editions of our "Guide to Health" in the English language, as well as four in Welsh and two in the French. In addition to the above

we have given to the female portion of the community a guide for themselves and their children, our "Treatise on Midwifery," &c. Equal in importance the "Botanical Journal" has wended its way into a circulation of some ten thousand fortnightly. Our Lectures also have been delivered in many of the large towns in England and in several cases have been repeated; hundreds of thousands are now receiving the benefit of those labours, and for which daily correspondence is pouring in grateful acknowledgments. Surely in casting a retrospective glance at the last twelve years of our life, an indulgent public will forgive the exuberance of our joy, for to know and feel that we have wiped away the tear of sorrow from the cheeks of thousands, is not the least exhilarating item in our past history. In the following Lectures our remarks (as we have before observed) may seem too severe, but under the conviction that it was error we grappled with, and that the happiness of the great mass of the people was concerned, we were emboldened in our

warfare. To our medical opponents we would say we never intended to be personal unless we were ourselves personally attacked, nor do we for one moment entertain the least animosity against any one, for we have a far higher and nobler end in view, viz., to convince rather than to condemn, and if possible to enlist them in our ranks, thus assisting us in alleviating the sum of human misery. We are happy to say we have several already with us of the "ancient faculty" and would make honourable mention of our partner Dr. Harle (educated in the *nostrums* of the old school) who has been with us for several years, with many others, who not only approve but are embracing our views. To such we tender our hearty thanks, as well as to our agents similarly engaged, who have adhered to our principles, trusting they will still continue in the good cause for suffering humanity's sake, even when we shall have retired from the field of action. To the friends of Medical Botany we can say never was a cause more prosperous and never had its

adherents more reason to congratulate themselves than at the present time. We confidently hope the day is not far distant when our system will be investigated by the higher classes of society, and that we shall have at least some few additions to our present number to assist us by their influence and ample means in establishing our principles throughout the length and breadth of the land. Our readers will perceive that we have not adverted to our own history in these remarks, as it will be found more enlarged upon in the Lectures themselves. To illustrate still further we have also engaged an artist who has delineated on canvass the most interesting incidents of our life, in nine large paintings which at some future time will be engraved for those of our friends who are interested in the system and its founder. The Lectures will contain engravings to explain our views, and specifics for the form of diseases therein referred to. Finally, with a sincere hope that this little book may meet with a similar fate to its predecessors—

the approbation of the public—and that the time will shortly arrive when a normal school as well as an infirmary or hospital, for the reception of the indigent poor may be raised, and that our system may spread until there shall not be known in the land *chronic disease*, but every father and mother will possess the knowledge necessary to stay disease in its first appearance, is the sincere desire and wish of the

AUTHOR.

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A COURSE OF LECTURES,

ETC. ETC.

LECTURE I.

On the History of Medicine, and its Uncertainties.

Mr. Chairman, Ladies and Gentlemen,—

It is a most gratifying circumstance to me that an opportunity is afforded of thoroughly investigating those subjects which have been the study of my life, and dispensing them to my fellow creatures. In the first place, it may be necessary to remind you that I shall, in the course of my lectures, come in contact with many preconceived notions, and shall run counter with the opinions of others; and though you may not at first, perhaps, clearly and fully understand the points I contend for, still give me credit for sincerity of purpose, and instead of condemning me, diligently and closely examine for

yourselves. Like the coming together of flint and steel, some bright ray of science may be elicited, and benefit result therefrom; but if, on the other hand, you question and doubt, and give no expression thereto, neither yourselves nor any one else can be benefited. As I before intimated, by the promulgation of truth I shall disturb the confidence of many individuals in the medical faculty, upon whom, till the present, they have placed implicit faith. Doubts will be entertained as to the extent of their knowledge, and conclusions drawn unfavourable to their character. This being the case, it will be my duty to present you with truth based upon experience and nature; and I pledge myself not to advance anything which I am not fully prepared to prove. As it regards those more immediately affected, I invite them to a close scrutiny; for truth is mighty and will prevail, and I would at any time prefer an open enemy to a doubting friend. Truth stands erect amidst all opposition; and I have not appeared before you to be trifled with, neither do I intend to trifle with others. I have to show a portion out of the numerous works of the Great Creator, to explain the nature and qualities of those productions he has benevolently provided for his creature man, and to endeavour, to the best of my ability, to show how, by a simple process, disease may be cured and

man restored to health. Those means are placed within the reach of all, and it is the imperative duty of all to be fully acquainted with the provisions of Nature. Indulgent Nature provides a fitting remedy for the ills of the human family, but man, in his ignorance, and sometimes perversity, rejects the proffered boon of Nature, and seeks in artificial aid an anodyne to ill. In physic, as, alas! in many other things, there is a monopoly; but it is time that man should shake himself free from its trammels and use that reason which God has bestowed on him In the language of one of our greatest bards, I would say—

"Man, know thyself; all wisdom centres there!"

Unfortunately, that is a knowledge that men appear the least inclined to pursue; they are content to know anything but that which most especially relates to their own interests, but from this apathy and indifference it shall be my endeavour to rouse them.

The history of medicine is one of the most curious anomalies in the world. Unlike the arts and all the sciences of life, the science of medicine, abstractedly considered, is so simple as to make it culpable on the part of man not to be fully acquainted with this subject. Man has in this, as in other things, hired others to do that which he ought

to do himself. "The faculty" (says Pinney, in his "Code of Health") "would do much for the advancement of their profession by laying aside pedantry and mystification. Why should not the diseases incident to the human body be treated of in an *intelligible* manner? Why should any individual subject himself to the prejudices of a medical man, when, by a small portion of study, he might qualify himself to combat with any disease with which he may be afflicted?" Voltaire said, "Let your physic be Nature: it is *she* who does the whole." Hunger is easily appeased, and with very little trouble disease might be as easily grappled with. Meet the enemy in the pass, and you will then conquer the foe. Delay not till it has attained its vantage ground, but vigorously press him on the outset. Your large hospitals that abound on every hand, generously bequeathed by charitable individuals, might then be applied to far different purposes. I stand not far from the place where lived the far-famed Culpepper, who observed that the medical profession were bent upon wrapping up all in mystery. As it was in his day, so has it continued to the present hour. The fact is, the only reason that can be assigned for this mystery is, simply, that monopoly delights to be so clothed, and this, forsooth, is to be dignified by the appellation Science, and the world is to be kept in awe,

nay, rather ignorance, lest the impositions practised upon them should be divulged. Dr. Buchan was one of our great reformers ; and though condemned by the faculty, the Empress of Russia testified her appreciation of his merits by the presentation of a gold medal for the work he had published. Dr. Brown, of Edinburgh, confessed he had an idea, a notion, a theory, but that it required to be reduced to practice. Unlike most other affairs of this changing world, the science of medical botany has a sure and certain basis, a firm corner stone, with unalterable truth for its foundation, on which a structure is raised on the laws of nature alone. Secure upon such a foundation, we may smile at the puny attempt of man to overthrow it, and may bid defiance to every power arrayed against it. Too long have the faculty allowed their minds to be prejudiced against the march of truth. Twice two will not make five is a fact not more evident than that which will kill cannot be expected to cure. The justly celebrated Harvey, who was born at Folkestone, in Kent, was undoubtedly one of the most remarkable men that ever lived. In 1665 he introduced the theory of the circulation of the blood ; and though he was himself a medical man, and possessed of his diploma, still the faculty carried on a series of persecutions against him. He, however, despised all the clamours and censures

that arose from all parts against him. It was enough that he had found out something new, and he was called the circulator, or, as it signifies in Latin, a vagabond or quack. As a reward for such discovery he was calumniated, misrepresented, and lost the greater part of his professional practice through their united machinations. His feelings were strangely wounded, for he found men's minds set against that which he was convinced was true. Harvey's doctrine was, "health is a *free*, but sickness an *obstructed* circulation of the blood." What truth more obvious? "Wo," said he, "to the man that resolves to be an investigator of that which is true!" But, after all, he lived to see a tribute erected to his honour. The mildness of Harvey's replies, and the ingenuous manner in which he relates the opposition he experienced, cannot be sufficiently admired. We are indebted to Dewhurst's Dictionary for the following letter written to Riolan, one of his opponents: he writes thus:—"My doctrine was so new and unheard of that I feared much animosity would arise from the envy of some, and that a number would take part against me; so much does custom and doctrine once received and deeply rooted pervert the judgment; however, my resolution was bent to set this doctrine forth, trusting in the candour of those who love and search after truth. After its publication,

scarce a day passed in which I did not hear either good or evil of my doctrine. Some say that this babe of mine is worthy being fostered, and that I have, by my observations and ocular testimony, confirmed the circulation of the blood. Others think that it is not yet sufficiently illustrated and free from objections; and others again cry out that I have affected a vain commendation of myself from dissecting of living animals, among which they deride my making mention of frogs, &c. It cannot be helped but that dogs will bark, and cynics pretend to mix with philosophers; but I shall take especial care that they do not bite and destroy with their dogs' teeth the very marrow of truth. They rail against me because I do not answer the surfeits they eructate: detractors, mimics of men, let them know that I never intend to read works that have nothing of solid sense in them, much less should I esteem them worthy of an answer. It would be unworthy of me to return opprobrious language for theirs; I should do better, for I will overcome opposition by truth; and if they will consider with me the anatomy of the vilest insect, they will find a God equally in the humbler as in the higher works of creation." Thus the discovery of the circulation of the blood was made known, opposed, and derided—a discovery which has immortalised its author. It is said that Harvey

imagined that the blood transuded from the arteries into the veins through a spongy substance, and not the distinct continuation of the one into the other. Not content with slandering the character of its discoverer, the more vile and venal of his medical brethren made it a pretext for declining to meet him in consultation. Harvey lived, however, as I stated before, to neutralise the malice of his enemies. He became successively the physician of the first wo English kings of the Stuart race, James and Charles. Ambrose Paré, principal surgeon to Francis I, introduced the practice of tying up the various ligatures on the amputation of a limb—a decided improvement upon the inhuman and barbarous practice, previously resorted to, of dipping the limb into boiling pitch to stop the bleeding. Though an improvement, it was an innovation upon the established practice of centuries, and for this great boon he experienced nothing but ingratitude. He was hooted, howled down, and was heard to observe, that "Corporations seldom forgave merit in an adversary." A man that discovers anything that is new makes a breach in the old citadel of opinions, and prejudices rush to the rescue, like sticking-plaster, to stop the fissures. The faculty have ever proceeded in a circle, their fathers ever did so, and they dare only do the same; and the very instant any of their body (although diploma-

tised, and one would imagine at full liberty to act as they choose) presumes to step out of the circle, he is stigmatised and upbraided as a quack, and transgressing their laws. Paracelsus, the noted chemist of his day, made many of the mineral poisons more virulent still in their nature than if left in their crude state. As to antimony, now so much valued by the faculty, the College of France persuaded parliament to make it penal to prescribe it. On the introduction into England of the Jesuits' or Peruvian bark, and which was found out as being efficacious in fever by a simple circumstance of a tree having been thrown into a pond, the water of which was greedily drunk by a patient burning with fever—those so introducing it endured much persecution. It was even rejected because it was imagined to be a device on the part of the Roman Catholics against a Protestant country, and therefore would not do to go down Protestant stomachs. They rejected it as the invention of the father of all evil. For the same reason, possibly, the physicians of Frederick the Great persuaded him from trying it to cure his ague. Luckily for the king, he laughed at their advice, took bark, and got well. Likewise the introduction of cantharides, or Spanish flies, into England by a German, which, internally applied, acts upon the kidneys, but exter-

nally for blisters, obtained for the man incarceration in Newgate for his pains. In 1693 this Dr. Groenvelt discovered the value of cantharides in dropsy; the then President of the College of Physicians obtained the warrant for the above-mentioned imprisonment. How unlike the late Sir Henry Halford, who afterwards availed himself of it in his own practice! To show the estimation in which Lord Byron held physicians in his day, in writing to a friend and relating the circumstance of a fever by which he had suffered, he tells him, "I got well by the blessings of barley-water and refusing to see my physician." In another place Lord Byron calls medicine "the destructive art of healing." Frank says, "Governments should at once either banish medical men and their art, or they should take proper means that the lives of people may be safer than at present, when they look far less after the practice of this dangerous profession and the murders committed in it, than after the lowest trades." Professor Gregory declared, that "out of every hundred medical facts, ninety-nine out of that number were only lies, and were, for the most part, little better than stark, staring nonsense." Vaccination owes its rise and adoption in England from the circumstance of a milk-maid, while milking a cow, perceiving a virus fall from a pustule on the teat, to her own hand.

This virus was successfully used by Jenner, but for which he was strangely persecuted. Errhman, of Frankfort, actually attempted to prove, from the prophecies of the Old Testament, that it was the anti-Christ that was to come into the world for its delusion, as predicted in Scripture. A writer, referring to such circumstances, makes the following remarks:—"As to Jenner, the world shouted; wags were especially droll, foretelling, in the excess of their witty fancies, the growth of cows' horns from the heads of vaccinated babies. When it was proposed to illuminate our streets with gas, and that it should flow under our feet, the world laughed, and then checked its merriment, and stoutly maintained that some night London, from end to end, would be blown up. When an experimental steam-boat was first essayed at Blackwall, and went stern foremost, the river rang with laughter. There never was such a waterman's holiday. When Stephenson was examined, by the Parliament sages, upon the railway project by which desperate people would be able to travel at the rate of fifteen miles per hour, the Quarterly Review laughed a sardonic laugh, asking, with galling irony, would not man as soon be shot out of a gun as travel by such means?" It was declared that steam-ships could never cross the Atlantic; and now we have them coming from America, and

bringing letters from brother Jonathan in the course of twelve days. I was journeying, some years ago, in a diligence, in France, and we saw preparations for a railroad to Boulogne. "Oh," said the driver, in a sneering, contemptuous manner, "that will never answer; they will never bring it to anything; there is no cause to fear; they will be glad to come back to the old diligence again." Since that time they are multiplied in every corner of France. Dr. Dickson, in his valuable work entitled "Fallacies of the Faculty," states, "By the Royal College of Physicians not only was Jenner persecuted and oppressed, but long even after the benefits which his practice had conferred upon mankind had been universally admitted, the pedants of that most pedantic of bodies refused to give him their license to practise his profession in London, because, with a proper feeling of self-respect, he declined to undergo, at their hands, an examination in Greek and Latin." The vaccine disease, you are most of you aware, is merely a milder form of the small-pox; and the chief use of vaccination is not to ward off the attack of that latter disease, but simply to lessen its virulence. Since vaccination has been practised, we have not man's countenance fretted and seamed as formerly. The science of medicine, as practised by the faculty, is not to be depended on; and having proved this, I

will shew you the right mode, and thus endeavour to give you that information which shall lead you to the right source, having numerous instances constantly occurring to prove the uncertainty of the former. Medical men have had to guess their way all through their practice ; for their laws were not like those of mechanical science—certain and definite. Dr. Brown, author of the Brunonian system, says that he *wasted* more than twenty years of his life in learning, teaching, and scrutinising medicine, and observes, farther, that it was only between the fifteenth and twentieth years of his studies, that, like a traveller in an unknown country, wandering in the gloom of night, after losing every trace of his road, a very obscure beam of light, like that of the first break of day, dawned upon him. Dr. Rush (and he may be considered the Hippocrates of America) said to his medical pupils—" There are three causes why we cannot cure disease, namely :—Want of knowledge of that disease ; want of a remedy ; and want of efficacy in the remedy when applied." What would you think of a watchmaker having painted in front of his shop :—There are three reasons why I cannot mend a watch : not knowing what's the matter with the watch ; not acquainted with the means to remedy it ; and having no faith in any means I might adopt.—How much trade is that

man likely to have? The same doctor remarked that he wondered physicians were not ashamed and blushed at the nature of their own prescriptions, when, after the various post-mortem examinations, diseases were found in any place rather than where prescribed for. One physician present at such an examination observed, "had we but known where that disease was located, we could have saved the patient: instead of that, we thought the disease somewhere else." Pretty consolation, truly, to a bereaved circle! Dr. Rush might well compare medical science to an unroofed temple, cracked at the sides and rotten at the foundation! Cobbett published what was considered a libel against this man, and was obliged to flee from America. The libel was the greater, because it happened to be so very near the truth. It was to this effect:—"Dr. Rush has cured all his patients, for he killed them all"—alluding to his universal practice of bleeding. The great Boerhaave (few better men have existed) was so learned as an author, and esteemed as a practitioner, that the student was not considered as finished in his studies till he had placed himself under his tuition. It was said of this distinguished character, that he would much rather visit the poor than the rich, for God was a good and certain paymaster of the former. Having written twenty-eight volumes on various subjects

in medicine, gave notice that he had under compilation one thick folio volume which would contain the result of the whole experience of his life. In his will he likewise referred to this volume in glowing language, and at his death this volume was found very carefully sealed from public view. A multitude flocked together, all equally desirous of obtaining this inestimable production of so eminent and valued a character. The volume was sold at a very high price, and the proceeds directed to be given to the poor, showing his benevolence to the last, and the purchaser hastened to unseal and peruse its contents. Judge of his astonishment when it was found to contain one simple sentence, as follows:—"Keep your head cool, your feet warm, your bowels open, and throw physic to the dogs:" the rest of the book was a perfect blank. Were the faculty but just and honest, how many would join the chorus! Dr. Baillie, one who by the faculty was esteemed a talented man, who composed medical terms that none but himself could understand, whose practice was so extensive that he was said to be obliged to return home once a day to empty his pockets—this gentleman was considered the best anatomist of the age, and cultivated anatomy assiduously during a long life, amassing a fortune by his medical practice. But, alas! what kind of practice was it? When he gave up his

professional duties and retired into the country, he was heard to thank God that he knew nothing about *medicine;* and, moreover, he declared that he had no faith in it whatever! Here then was a man who admitted his entire ignorance of the principles of a profession by which he had actually acquired a fortune. It is no honour to the medical profession when I state this fact; and it is, moreover, no consolation to the afflicted when I tell them that there are hundreds of hair-splitting Dr. Baillies in our own country at this very day. Bacon lamented that the science of medicine had not progressed as the public might fairly, and indeed had a right to expect; for physicians, said he, had reasoned in a circle, and not in a straight line. One doctor attributes the origin and foundation of all diseases to be the ague. Sir Anthony Carlyle made the following remark when lecturing to his pupils:—"Medicine is an art founded in conjecture, and improved by murder! I never could discover any rational principle in physicians' treatment of a case; it is all guess-work." This is an appalling but a true assertion of that eminent man. So long as the practice of medicine contains no fixed principles, so long will its disciples go on floundering amidst conjecture and error. In private practice no two of them can scarcely ever be found to agree. Trying this thing and trying the other is mere tampering with human life. As

far as medicine is concerned, the best anatomists have been seldom found to be good physicians. Hippocrates contended that "the type of all diseases is one and identical;" and in another place asserts, "All diseases resemble each other in form, invasion, march, and decline." Dr. Thatcher, author of the "American Dispensatory," remarking on the practice of medicine, said the introduction was "uncertain in its effects as regards mineral compounds, and depended much on the state of the system, whether they acted at all or operated with sudden and dangerous violence." Dr. Ring, another of your learned men, who has written some valuable works, suddenly retired from his professional practice. Speaking once of medicine, he observed, "I am tired of guessing; it's all lies and deceit." He could not, it appears, calculate, as I said before, with mathematical precision, so he became disgusted with the science altogether. I have had presented to me a diploma, placed in my hands by a celebrated Scotch physician at Bath, who, on delivering it to me, said, "Dr. Coffin, I make you a present of this, and you may tell the public, when you like, that I think medicine a humbug." This diploma was properly attested by the signatures of Dr. Black, Hume, and several of the greatest men of the age then existing. Dr. Cole, of Dublin (a teacher or

maker of doctors), was also lecturing one night to his class on the pathology of disease, when he surprised them by abruptly exclaiming, "the fact is, gentlemen, we know nothing about it." Why blame us, then, as a body, for our own endeavours to benefit our fellow creatures, if their own practice be so uncertain? The observations made by Baron Alderson, at the Liverpool Assizes, when one of our friends was charged with manslaughter, will long be remembered by friend and foe. His lordship said, that "*mala fides* must be shown, or such an amount of ignorance as implied *mala fides*. The question was, whether the prisoner had done his best; for, if that was so, the prisoner ought not to be tried for manslaughter. All great improvements had taken place in opposition to the old practitioners; and if people were liable to be tried for acting contrary to the regular system, no one would attempt to make any new discoveries in medicine. When a person acted *bonâ fide*, a charge of manslaughter, according to the late case, cannot be supported." The verdict, as might be expected, was, Not Guilty. All honour to Baron Alderson for this liberal and independent sentiment! The medical journals may vent their ire, but all liberal and unprejudiced men will acknowledge the justice of the learned baron's remarks. The origin of medicine is obscured by a veil of im-

penetrable darkness, since the facts connected with its first professors are for ever wrapt in the flight of ages past—destroyed with the forgotten archives of former days; but it is highly probable that it is coeval with the human race; for man, as an organised being, has in all ages been subject to infirmities, to disease, and to death, which would induce him to search into the productions of the earth for the means whereby he might ease the pangs of suffering nature. From history we learn that the physicians of ancient ages confined their medical treatment to a few particular remedies, and these remedies were simple, being chiefly selected from the vegetable kingdom. In the early part of my life I devoted five years to the investigation of medicine. I remember that at one time I was sent by my master to see a patient. I took an opportunity of asking the patient if he had any objection to my examining his pulse and his tongue. He acceded to my request, and I pulled out my watch and took count. I then went and reported progress to my master as knowingly, and with as much importance, as any physician. Dr. J— was afterwards called in to consult with my master, and permission was granted me of being present at the interview. Oh that I had but the power of the dramatist, that with the pen of a Shakespeare I might depict the scene that ensued! I shall,

however, divide it into four acts. Dr. J— proceeded to question my master on his late treatment of the patient. My master appeared to sum up all his classical learning, made use of several long words, technical terms, and so on; they were responded to on the other hand by "just so—yes—hum—quite right," &c. He appeared perfectly satisfied, and I felt myself strangely elevated to think that my master should be such a learned man, and that he had done all that was right. They then proceeded to examine the patient, and after that they retired into another room. Dr. J— took the precaution to close the door, and having done so, commenced a severe tirade against my master. "In the name of heaven, E—," said he, "what have you been doing? Your practice on that man has killed him;" and much more to the same purpose. I stood aghast, and could not tell what to make of the affair; but if my surprise was great at this stage of the proceedings, what was it afterwards? Once more they proceeded to the bedside of the patient, and Dr. J—, in the blandest manner possible, and looking particularly mild, said, as he was taking hold of the patient's hand, "We have been consulting together on your case, and I have the fullest confidence in my friend Dr. E—." He then calmly took up the two guineas offered him as his fee, made his very best bow, and we de-

parted for home. During the ride homewards not a word respecting the interview that had lately passed was spoken, and the conversation turned upon the construction of a canal and other improvements, the general topic of conversation at that time. It was two or three days before I could summon sufficient courage to say a word of the affair to my master; but when I did ask him what I was to think of such an affair, he simply replied, he had forgotten all about it. A few days afterwards the man died, which makes the fourth act; but I still want one more act, and that was a long bill that stretched to an enormous length, which I was to take to the house in question, with my master's most respectful compliments. The bill was immediately paid, with *their* most respectful compliments and their many thanks to Dr. E— for all his kind attention to deceased. And so ends the farce; and I felt sick of the profession. I have heard my master say that he would rather be whipped than be called to see a young child that could not talk, for they could not tell what ailed it. I have known a man consult three separate doctors on his case, and received three distinct prescriptions. An instance of this kind occurred in the case of a gentleman, who once lived in Leeds, but since has been employed on the Doncaster railway. This man, apparently not satisfied with the prescriptions he had received from three separate doctors, to

whom he had paid half a guinea each, brought them to me, and asked me if I understood Latin. I replied, "Not dog-Latin." He then showed them me, and I found them each as distinct in their nature as possible, and widely different from what I should myself have prescribed in such a case as he related to me. Is this a science of mathematical precision, a theory, or is it conjecture improved by murder? I have never seen one theory of theirs based on truth. The Emperor Adrian had it put upon his sepulchre that he perished by the multitude of his physicians. I believe God has given information for the preservation of health to all. Let us look at the aborigines of North America. Where have they had their information from? From whence has their knowledge been derived of the nature of the various plants by which the woods are so bountifully furnished? The same that is given to the donkey, by which it is enabled to refuse any plant of a poisonous character, such as hemlock, &c. Man has reason bestowed on him, and shall he not likewise reject the various poisonous drugs administered by the faculty? In a late number of the British and Foreign Medical Review we find the following admission:—"That the intermittent nature of disease must certainly be better understood before we can practise medicine scientifically." Every day we see instances in which surgeons have mistaken

blood for matter, evidently having no clear idea of the anatomy of the human frame; and if such gross mistakes be made by your medical men, give me credit for understanding as much, and being no quack. As to the endeavours made to impede my progress by the faculty, I entertain no ill-feeling towards them —no, not a particle of ill-will; but, if they say I am a quack, I would beg to remind them that I also belong to medical colleges, have passed through examinations, nor have I bought any man's name. I think it advisable to observe, that with regard to lobelia, it were better that the system be previously prepared. The article by this means will work more beneficially and safely. It will save a patient, provided that there be sufficient vitality left in the system. The remedies employed in this system I know and can depend upon; but trifle not with the remedy at hand till the hour is passed and all chance has fled. The principal object is to prevent disease by checking it on its first appearance. I have now, I think, made it clear that the practice of medicine has been all guess-work. I have given you authorities to prove that is the case, being the testimony of men that cannot be gainsaid. I offer you a system based upon the simple laws of nature. I leave the matter in your hands to investigate the principles of medical botany, and to judge for yourselves.

LECTURE II.

On the Nature of Disease—Opinions, &c.

"By education most have been misled;
So they believe because they were so bred."

Mr. Chairman, Ladies and Gentlemen,—

Some remarks have been made by the chairman, intimating that proofs of such a nature would be adduced that they could not but convince; but there is a possibility of your being proof against conviction, though such a state of things, it is hoped, does not exist. If plain, forcible, and intelligible language can effect the object, the fault shall not be attributable to myself. We are told that there are 1,500 forms of disease which all doctors should perfectly understand before they attempt to practise; and it is to be taken for granted by the public that such a knowledge is obtained; which is impossible. It is, however, unnecessary, on the simple plan we have adopted, that medical botanists should go through so tedious a process, and I will give the testimony of other authorities to prove the truth of what I assert, thus showing the subject of disease is not so complicated as it at first glance appears.

Where did mothers ever see an account of 1,500 forms of hunger necessary to be understood before they can appease the appetites of their children? There is but one immediate cause of disease: its symptoms may be various occasioned or arising from different causes. One principle may be recognised in its removal though the means employed, like the various articles of food to relieve hunger, may vary in their nature and properties. Hunger may be defined as the absence of the nutriment from the stomach necessary to preserve life, and the food supplied must be of that nature which is in accordance with the principles of the animal economy and not of a poisonous nature. Why should not then the science of medicine be as easy? A few simple articles of food are necessary to keep the body in a state of repair; so is it preferable to remove disease by simple remedies. A mother ought to know the constitution of her own child she being the natural and proper guardian of it; and as she is compelled to give the doctor all the information he requires to prescribe for that child why not take the power in her own hands and become the doctor herself. She knows the food the child requires and why not the medicine also? If the suggestion is made you are met by the exclamation "Oh! that's quackery," but let not such a phrase alarm you. On one occasion attending a

patient, a little difficulty arose owing to his belonging to a club; and after my attending and curing him once or twice he caught cold, and was obliged each time to place himself under my care. When, however the man was perfectly recovered, he applied as usual for his certificate which required the signature of the doctor, which he refused to give. The case was taken up by the members and the doctor remaining obstinate was discharged. So that we are getting our friends as well as our enemies, and men are beginning to think and act for themselves. To return to our subject: If man is to be allowed by God fully to understand the nature and character of the various articles of food he eats, why should there be any embargo upon the science of healing? Why should he not fully understand the purposes of medicine; and as food is destined to invigorate the body, so should medicine likewise not only remove actual obstructions but be of such a nature as also to restore and repair the decay of nature. There are two principles necessary to be kept in view—warmth and circulation, both being actively engaged in the stomach. As fuel is supplied to the fire by which you obtain an artificial warmth, so by food supplied to the body the frame is nourished, being digested through the actions of the organs devoted to that purpose; the gastric juice assimilating with the food, it becomes

at last decomposed and like fuel consumed. I said consumed; that is hardly a proper phrase for it as it goes through various channels hereafter to be explained. The perspirable vapour arising to the surface of the body is like the smoke from the fire; the substances that remain may be compared to the ashes of a grate. When disease seizes the frame, those medicines only should be used which most readily and safely act upon the various organs, removing obstructions, and promoting perspiration, you thus give nature a chance of throwing off all the impurities of the system by her three channels—intestines kidneys and pores of the skin. You by this means restore likewise the digestive organs to their proper play, and heat and action to the system. This is unquestionably the best mode. To be fully persuaded concerning the laws of the animal economy is the first grand point before the nature of diseases can be understood, there being, as I stated before, but one grand moving cause of disease. Hippocrates, the father of physicians, observed that all diseases resemble each other in form, invasion, march, and decline. Dr. Thatcher contended that all diseases arose from obstructed perspiration. Dr. Rush's idea was, that they arose from the excitability and irritability of the nervous temperament. Dr. Dickson author of "Fallacies of the Faculty," alleges that they arise from ague; but our

opinion is, that the generality of diseases proceed from a loss of the equilibrium or a lessening of the vital power of heat, which is as necessary to the sustenance of life as it is to a baker's oven. As a fire lighted in a room will rarefy the air and lighten it, so heat admitted and diffused through the human body produces beneficial effects. By the generation of this heat in the system the lungs are expanded, the weighty cold air drawn into the lungs expels the lighter air, and thus the lungs, contracting and expanding, is called respiration or breathing. The blood is by this impregnated with its oxygen, and propelled through the various arteries to every part of the body, diffusing life and health for the sustenance of man. "Health," says Harvey, "is a free circulation of the blood;" how necessary then that the crimson fluid should never be impregnated with any deleterious mixture, and that water should be our only beverage to keep up the requisite steam! The various conflicting opinions of different authors on medical science tend to mislead and bewilder the student. He is placed in the predicament of a traveller who finds at the entrance of four roads a finger-post, with an indistinct inscription directing him to a certain town, and he has to try each road before he can arrive at his destination. Your hospitals erected by the charity of

benevolent individuals, are become so many schools for young experimentalists. Not a hundred miles from this spot is one hospital that requires by its charter, there should be at least one amputation every year. It so happened that during one year there was no case that required an amputation, and rather than lose the charter a limb that scarcely required amputation was sacrificed. My attacks therefore are on principles not men; and though I may be stigmatised as fostering quackery, one moment's thought will set aside that notion; for it is well known that a quack invariably conceals his nostrums, whereas I pursue a direct contrary course and tell you all I know, leaving it to your own judgment and discretion. Our chairman was struck he said, with an incident he saw recorded in "Owen's Travels in Africa," where, it was stated several of them were attacked with fever, and excepting the captain, the doctor as usual bled and calomelled the whole lot, who all died under his treatment and last of all the doctor (which at any rate showed he was honest), served himself after the same fashion and died also. The captain who thus refused to be drenched and bled, recovered. The medical faculty unfortunately, work at the effects instead of the cause. I spoke of the conflicting opinions on disease; but here is another point: so anxious are the clique to keep

secret the very names of their drugs that every one knows should never change; that now-a-days a woman grown old in the capacity of nurse hardly knows how to ask for so simple a thing as paregoric, and the assistant must take down a bottle labelled *comp. tinct. opii, ammoniata;* in England a grain of opium being the quantity to half an ounce, and in Scotland one grain to a drachm, or a fourth more: known in the latter country as *tinctura camphoræ composita.* Now I leave you to judge if one woman in a hundred is likely to remember either of these technical terms. I have seen many of the aborigines of North America endowed by God with sufficient wisdom for all they require for the cure of disease. Do they know your technical phrases? No indeed! but they know how to cure the sick and I fancy that's all that's required. This knowledge you too are capable of acquiring, of fully understanding and perfectly comprehending if you will. This has been my object in thus appearing before you if possible to induce you to think and act for yourselves in these matters. I consider that there has been on these subjects a mistaken education. Knowledge highly essential as this undoubtedly is to the well-being of society, has from a false delicacy or some other unaccountable cause been totally, and I may say criminally disregarded. It

has been remarked by one author that "a technical term unexplained is a dark spot on the field of knowledge—explained, it is a clear and steady light." It would puzzle the wisest of them to wade through the sea of those now in existence, a dictionary of them having been published during the last few years. Women are our earliest teachers; they must be the nurses of the rising generation; they can be neither without incurring great risk, unless some information is given them on these subjects. A great obligation is resting upon them to study these things; and I look upon that notion of delicacy which would exclude them from such knowledge, calculated as it unquestionably is in an extraordinary degree to open exalt and purify their minds, and to fit them for the performance of their various important duties; as alike degrading to those to whom it professes to show respect, and debasing to the mind that entertains it. Were many females to change their position in life for that of the married state, they would be utterly at a loss how to fulfil its duties, to undertake the management of a new-born infant, to guide it to health knowledge goodness and happiness. She would be incompetent to regulate the influence of external agents upon its delicate tender and highly irritable organs, in such a manner as to obtain from them healthful stimulus, and avoid

any excitement of a destructive character. The selection of natural and moral objects for the exercise and development of a child's opening faculties is an affair that has been shamefully neglected. We find in our every-day converse persons lamentably ignorant of the construction of their own frames, the various circumstances necessary to their own health, those agencies by which diseases are engendered, therefore the manner in which, or the course to be pursued to avoid those agencies. Were this knowledge more diffused among our fellow-creatures we should have a far more healthy and happy race than at present. Dr. Thomas states that it is impossible to tell between measles and the chicken-pox; and yet they must be treated differently. In the course of my observations, as I warned you I should, I come into contact with prejudices; but if you do not believe my opinions you are at liberty to reject them. I will however prove my points and your rejection of those truths will be against your own interests. There are many causes in this country that produce disease. I hol in my hand a letter from a correspondent concerning the use of beer; as this is a question I have bee often asked elsewhere, let it be distinctly understood that I consider all malt liquors highly injurious, for they destroy the equilibrium by creating an unnatural stimulus to the organs, and it is like

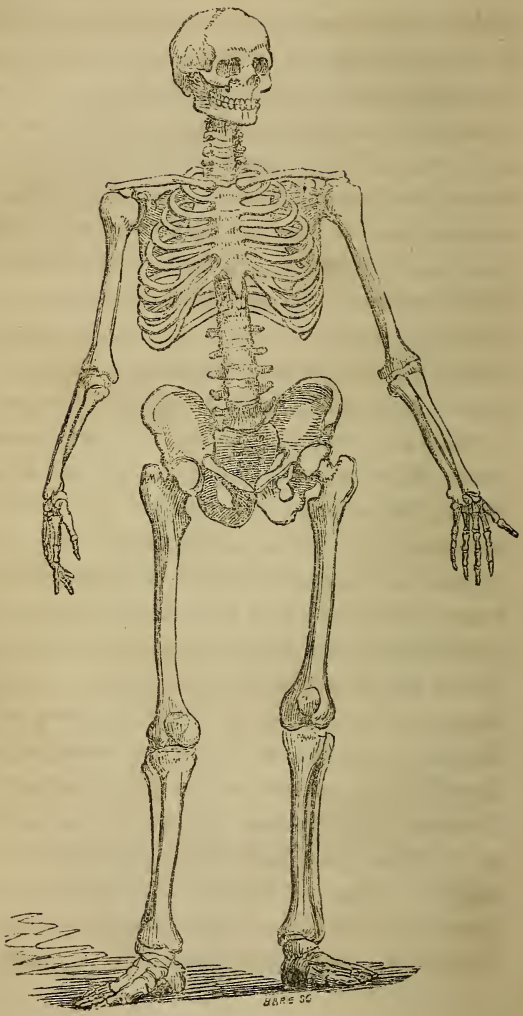
shortening the pendulum of a clock, the effect of which would quickly manifest itself. Mothers can rear their offspring without beer for it is not at all necessary for their support. It has the effect of opium to the Turkish mother, which becomes by its continual use a part of her nature. Some contend there is support to be derived from it but this I deny for it is certain that it is only a stimulant; and I would substitute barley bread as far more nutritious. By the use of malt liquors you change the properties of your system altogether; you create a deposit of fat in the human frame that clogs and interferes with its functions, and I will, on a future occasion, show you a few human stomachs by which you will be able to judge of the effects produced by such deleterious substances. Were it really good I would not enter my protest against it or seek to deter you from its use. The practice of overloading the stomach is another cause of disease. Hot bread or beef-steak suppers in large quantities immediately on going to bed, either of them is sufficient to derange the functions and cause digestion to be interfered with; yet how often do we find children thus indulged cruelly so under the mistaken notion of kindness! Many of these things want correcting in society. Such loads as these for the stomach if taken at all were better to be taken as a breakfast than a supper, for there is a likely chance

of its being digested through the day. Heavy suppers produce especially in children a train of diseases. The mixture of medicines in wines and spirits is another highly improper course. Dr. Cheyne stigmatises the use of wines and spirits administered in medicine, &c., as one of the most fatal delusions which ever took possession of the human mind. Dr. Abernethy was once asked regarding spirits if brandy as recommended by the faculty was good for digestion: he answered that alcoholic drinks were bad and injurious no matter for whatever purpose administered. His interrogator further inquired if he told his patients so? "Oh! no God forbid!" said the doctor; "were I to do so I should lose one third of my income." The ridiculous notion of spirits promoting digestion is evident from the fact of various articles being preserved in bottles filled with spirits at our museums. It may be well perhaps to give you an idea of the effects of alcohol upon the human body; you will then be able to judge for yourselves if alcohol be good or bad. "The number of persons that die from diseases produced by alcohol is calculated to be at least a quarter of the population. This mingles with the blood, and may be obtained by distillation. It is not harmless there, as it alters the structure of the arteries also of the liver of the stomach and of the kidneys. The effects of

alcohol on the arteries and especially of the aorta as constantly seen in the drunkard, are thickening and thinning ulcerations and ossification of the coats of these vessels ; and in this manner their elasticity is destroyed, and they are rendered pouchy (like a bag), and aneurismal (or dilated). The diseased state of the arteries, acting on the heart produces enlargement and hypertrophy of that organ, till the whole balance of the circulation is destroyed, and the patient rendered liable to apoplexy asthma and dropsy. Besides this it affects the liver which becomes enlarged ; hardened and granular (minute grain-like fleshy) bodies are formed on the surface of wounds."—" Encyclop. Metropolitana," p. 562. Spirit, though much diluted still retains its original strength on its arrival at the stomach, as if not diluted at all. The food of the stomach steeped in libations of spirits is hardened and in that case difficult of digestion. No other liquid is required than simple water, which quenches thirst more readily than any other liquor, effectually supplying the waste continually sustained by the blood and juices. There is no question as to its perfect adaptation as a solvent of the food taken into the stomach. Spirits exhaust the vigour, while simple water strengthens the tone of that organ. The name of the celebrated John Hunter is no doubt familiar to you. I shall therefore narrate

a circumstance that transpired relative to that distinguished character. "A strong ruddy-faced farmer had a disease which induced Mr. Hunter to enjoin a total abstinence from all fermented liquors. 'Sir,' said the farmer, 'I assure you that I am a very temperate man; I scarcely ever exceed three pints of ale in the day, and I never touch spirits.' —'But,' said Mr. Hunter, 'you must now drink nothing but water.'—'Sir,' said the farmer, 'that is impossible, for I cannot relinquish my employment, and you know sir it is impossible to work without some support. Mr. Hunter, perceiving that his patient was not likely to be readily convinced, inquired how many acres of land he cultivated, and what number of them was arable. He next asked how many horses were kept upon the farm, and then boldly asserted they were too few in number for the quantity of land. The farmer maintained they were sufficient, but at length was brought to confess they were *worked hard.* 'Allow me then,' said Mr. Hunter, 'to inquire what it is that you give them to drink?'" Spirits are the direst enemy to the health and well-being of the human frame. How many of the lives of children are sacrificed to the mother's indulging in these drops! The poison is conducted through his means to the offspring and the tender plant too frequently languishes and dies. How much

wretchedness poverty and misery are attributable to this scourge of the human race ! I have brought the skeleton of a French soldier that your human frame may be explained to you. I have said before that it was a false delicacy on the part of females to shrink from such a spectacle. A friend once expressed his surprise at my exhibiting a skeleton before a mixed assembly ; but I immediately asked him if mothers who were to be the nurses of the rising generation, were to be kept ignorant of their duties ? morally and physically destitute, could they be blamed for much of the distress that troubled the world ? Perhaps of all the stupendous works that ever emanated from the hands of the Great Creator, none can show greater skill infinite knowledge wonderful adaptation in its various organs than that matchless production the human frame. Composed as it is of more than 250 bones between 400 and 500 muscles innumerable ligaments viscera blood-vessels nerves, &c., and it has formed an exhaustless theme for the wisest men for ages. The bones are the hardest and most solid parts of the whole system and are the principal parts that give form stability and posture—in fact the frame-work itself. The bones are of three kinds :—long or cylindrical, as the legs and arms ; broad and flat, as the shoulder blade ; and round, such as the wrist and ankle. They are plentifully supplied with



minute blood-vessels without appearance of fibres or plates. They are sometimes peculiarly shaped to accommodate muscles and ligaments. They are composed of earthy and animal matter and have a covering of dense membrane. In the shaft requiring strength the surface is compact provided with marrow or surrounding a spongy or cellular substance, thus combining great strength with lightness and little expense of material. This principle is shown in the bones of large birds which are hollow for the purpose of assisting them in their flight. I have seen bones brought into such a state by calomel that they have been made as rotten and spongy as possible. I once in extracting a tooth of one who had been well drenched with calomel, brought away a part of his jaw-bone and found it perforated like a honeycomb. The man had been treated for a disease of the liver. In explaining the subject of dislocation it will be necessary that you should understand that the end of the humerus or bone of the arm works in a concave or cup; this is connected by pieces of cartilage attached to the centre of both and this afterwards enclosed by a band called a capsular ligament. This said cartilage or gristle is a hard elastic body smooth and insensible, and its use is to cover the ends of bones that have motion to prevent friction attrition, &c.

This convex head when the arm is put out of joint slips down and if only recently done the cartilage in that case has not had time to harden or contract and therefore by one man putting his shoulder under, catching hold of the arm and thus lifting the man up, if properly managed, the head of the bone will again return to its socket. If however this does not succeed and the bone has been suffered to remain too long, then the principle of heat must be applied to expand the muscles. This may be explained by the fitting on of the tire of a wheel. The diameter of the tire and that of the wheel itself do not at first tally; in this case it would be useless to attempt to stretch cold metal for that would be impossible: and were an employer to find his workmen trying to do so he would call them fools for their pains; but if the tire be made hot and beaten out and left to cool on the wheel, it will gradually contract as it becomes cold and so accommodate itself to the exact size required. So in the case of setting of bones, the part should be wrapped round with cloths steeped with hot water and sprinkled with cayenne pepper applied as hot as the patient can bear it several times repeated. By this means the muscles will relax, and the bone can be shifted into its proper place; the part should then be strapped firmly up. This matter may be illustrated still farther by the fact that a pig's foot

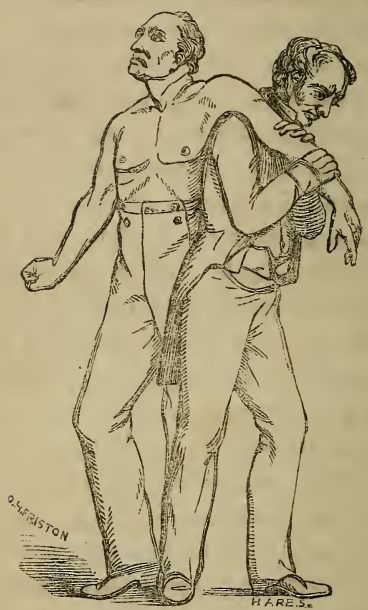
when boiled will have all the muscles pliable and soft so as to be bent about at pleasure, but when allowed to get cold and you attempt the same thing they will snap asunder. Returning to the subject of the skeleton—descending a little lower we have two bones forming the fore-arm. The smaller one at the outside is called radius which has a cavity at its head articulating with the smaller condyle or protuberance of the upper bone already mentioned, and by a slight bend reaching to and articulating with the bones of the wrist called carpus. It is called by some radius owing to its apparent resemblance to the spoke of a wheel. In company with this bone is another called the ulna or cubit, connected with the upper bone by a ligament. The wrist is composed of eight bones; the smaller bone of the arm is joined to it by a ligament. They are disposed in two rows have various shapes and names, and have a gentle motion on each other as well as on the fingers. You will perceive that the bones of the fore-arm only touch at the extremities, the one joined as I said to the upper and the other to the wrist. The contrivance is remarkable being well adapted for carrying heavy weights &c. You will see that in the fore-arm two motions are required at the elbow backward and forward, also a rotatory or twisting round at the wrist by which the palm of the hand may be turned up-

wards. When this last action is required the two bones roll upon each other; the one has a groove or hollow fitting a corresponding prominence in the other. The eight bones of the wrist form a kind of arch supported by ligaments. So admirable has ever been considered the movements and general construction of the hand as to find matter sufficient for a volume that has been written on the subject. The back of the hand is composed of five bones of a cylindrical shape called the mid-hand, or metacarpal bones. You will perceive a slight difference in the shape of the thumb-bone and those connected with the four fingers. The fingers and thumb comprise fourteen bones connected by capsular ligaments to the mid-hand or metacarpal bones, and to each other. The first row you will perceive have sockets for the metacarpal bones which are furnished with a convex head. To the upper bone of the arm are twenty-four muscles attached; to the two bones of the fore-arm are altogether twenty-two; to the wrist six; to the metacarpal eleven; to the fingers (or phalanges, from a Greek term signifying the ranks of an army) eighteen. It will be necessary now we are mentioning the subject of muscles, to explain what a muscle is. A muscle is a fleshy substance composed of fibres capable of contraction and relaxation. They are inserted into and enclose the bones

connecting the frame together, sufficiently elastic to allow yea facilitate motion. Their colour is a reddish brown; they are sometimes arranged in pairs of which latter there are about 257, forming altogether about 527. They are plentifully supplied with blood-vessels and nerves; they terminate in tendons, a fibrous cord conducting their motions to the bone, and these tendons are supplied with sheaths. In muscles there is an irritability, but is not so great in the tendons, this irritability is present after death. There are a multitude of these muscles about the face, head, and eyes. The diaphragm is a flat muscle stretched across the trunk from side to side separating the chest from the belly and assisting respiration. There is a beautiful contrivance as to the muscles of the fingers for they are attached to the fore part of the arm and communicate by long tendons fastened across the wrist by a ligamental band or tendinous substance keeping them firmly fixed in their right places. I remember a case occurred of the collar-bone of a passenger being put out. A coachman was driving us (when in America) over some very rough roads and had the misfortune to upset the vehicle. Necessity we are told is the mother of invention and has no laws. True there was a surgeon three miles distant, but that was of no use in this emergency; so having some tincture

of myrrh and cayenne with me, I applied them at once; and putting my shoulder under his arm I

SETTING THE SHOULDER.



restored it to its right position to his no small joy and satisfaction. Another case occurred of a child in which I was sent for in great haste. I sent word to the mother by my assistant to get a kettle of water boiled immediately, and on my arrival at the house found the girl crying more in fear of the operation that she dreaded than the pain then experienced, imagining I should "almost kill her" in

setting it. This reminds me of having to assist my master after the old practice of setting bones. One man stood on one side of the patient, and taking hold of the limb commenced pulling it one way while I assisted my master sweating at another part of the operation. I sighed to think there should be no other more easy mode, and was led to set my wits to work to find it out. I however in this case pursued a different plan to that and administered internally, some cayenne, thus creating the equilibrium necessary in the system. I placed her on her father's knee, engaging her in conversation, obtained her own relation of the whole affair. While thus relating the circumstance I had succeeded in my task without the application of any force, and without her being aware that the operation had been performed. The hot water while taking away all soreness reduces any swelling that might arise. A person standing near me, till that time strangely prejudiced against my peculiar mode of operation exclaimed, "Is that the way you set bones?"—"Yes," said I, "it is,"—"then you shall certainly have all mine to set," he replied. Where so much skill is expected to be witnessed, as amongst the surgeons of a hospital, a specimen like this I now bring before your notice would hardly be credited. Such however is the fact; and surely there are many in this

BADLY SET BONES.

assembly who can set bones as well, and I hope much better than this. A Mrs. R—, living at Mirfield, near Leeds, had a child who broke its arm. She sent in great haste to a surgeon's, but in the mean time finding the surgeon was out, and no time was to be lost, she was determined to turn doctor herself, and commenced putting on hot cloths, and pursued the system I had explained to her on a previous occasion. By the time the doctor arrived it was all finished. She inquired of him if it was all right: he replied it was, and was anxious to know who had performed the operation. She answered she had herself performed the task,

having obtained her knowledge from hearing Dr. Coffin's lectures. The name was fatal and like the shock of a galvanic battery, for he immediately rushed out of the house. What philanthropist but would have rejoiced at the alleviation of such misery! He never entered the house again. On one occasion I was called to see a child who had unfortunately got a bean up its nose, which was almost out of sight. A friend twitting me, said I should not succeed in getting that out with cayenne. I was indeed for awhile at fault. Suddenly a thought struck me, and while the child was taking its breath I blew down its throat, (holding the opposite nostril tightly), with considerable violence; by which manœuvre I produced a similar effect to that of an air-gun. This brought down the bean immediately. I was present (during my continuance with my master) at the extraction of a fine particle of barbed steel from the eye of an artisan, which proved a very tedious and painful operation. I pondered likewise over this scene, and anxiously desired to find out some easier and more efficient mode than the cutting and mangling I had witnessed. Fortune favoured me in this also. I had conceived a great taste for mechanical pursuits, and in the prosecution of these I contracted an intimacy with an intelligent workman. On one of the occasions I was working in

this mechanic's workshop, I noticed suspended from the cieling an immense magnet, capable of lifting a weight of fourteen pounds. The instant I saw it I exclaimed, "Oh that I had a man here with one of those pieces of barbed steel in his eye! I would soon have it out." My companion seemed astonished at what I said, but the observation was forgotten. Several months after this a man came to me in great agony, and told me he had one of these said pieces of steel in his eye. "I am glad of it," said I, on the spur of the moment, which he thought very cruel; but after explaining myself we went together to my friend's workshop, and I placed my patient directly under this powerful magnet, and desired him to look up, and it was to see the offending particle mounted aloft upon the magnet. Grateful enough was he for that service. A knife well charged with magnetism will produce the same effects; and it may be done by a simple process of laying the blade on a shovel, holding it with one hand, and with the other rubbing the tongs several times briskly over it. I shall, on a future occasion, have to explain the skeleton more fully, as well as the important viscera contained in the thorax or upper part of the body, and shall take the opportunity of exposing the ridiculous and dangerous practice of tight lacing interfering so dreadfully with the important functions of the human frame.

LECTURE III.

On the Remedial Agents of the Schools; proving that poisons should not be used as medicines.

Mr. Chairman, Ladies and Gentlemen,—

The chairman acknowledges that my name is rather an ominous one to be possessed by one who professes to cure the sick, and it has been suggested I should change it. Let the name rather intimate to patients taking medicines such as we recommend that they are the more certain of being kept a short time longer from their last resting place than by following the other system. If such be the result it will act beneficially rather than otherwise. I have to address you on the remedial agents of the schools. Botanical societies have been formed and are multiplying in Devonshire, Yorkshire, and almost every county in England for the purpose of spreading knowledge on this important subject. Such societies do good, inasmuch as with the flower in the hand a man is enabled to examine and correctly to ascertain the various classes to which they severally belong; but if such a science is beneficial to mankind in elevating and refining his tastes, affording an opportunity for examining the beauties of creation, how much more beneficial is medical

botany likely to prove to the individual who gives his mind to the study of the medical properties contained in the many plants, hitherto passed heedlessly by unfortunately as though unworthy of notice. Such a knowledge bids fair to be of great and lasting service to man, for these remedial agents are found more or less in every country; for it is a fact, as one author has observed, that "the Lord hath created medicines for restoration to health *on* the earth, and not *in* its bowels." No poisonous substances, whether of a mineral or botanic character, can be made to assimilate with any part of the human constitution. Some may perhaps say "Is there not iron in the blood, and therefore is it not beneficially applied to the system?" I grant that it is so present there, and useful too; but on the other hand the quantity already existing there, combined with the amount contained in the vegetables you use, is quite sufficient without requiring it in mineral preparations. God has evidently so ordained this. In much of the food also that man exists upon there is no mean proportion of this ingredient. Would it not then be as ridiculous for a builder think you, to buy up all the old materials he could lay his hands upon, and which he himself, as well as his neighbours, was well aware would prove useless to him, as for a doctor to administer that for the body which would be an obstruction instead of a benefit. The practice of medicine at the present day is unfortunately a mere deception; and many of the faculty, deceived themselves, pro-

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pagate error. It shall be my endeavour then to present to your mind's eye the two systems, that you may thus have an opportunity of accurately forming your judgment. The remedial agents of the schools, or drugs contained in the pharmacopœia, amount to 410; and Dr. Leeson, in his work entitled "Heart and Lungs," makes use of the following observation:—"Now, any practical man of ten or twenty years' standing must have found that *four hundred of these preparations* are of little or no value whatever in the treatment of any form of disease, and that about the *remaining ten* might have assisted him in reducing, at one time or other, cases occurring in every department of his practice. Nearly all the waters, confections, decoctions, extracts, infusions, liquors, mixtures, essential oils, spirits, tinctures, have little or no influence over any form of disease when used as internal or external remedies. Many of the mineral preparations are absolutely injurious in their effects under every circumstance, while the retention of other remedies is burlesque and nonsense." If then as this author asserts, 400 of these so called remedies may be thrown aside it is very clear that they only afford a profit to the druggist. What an useless amount of labour then for a student to become thoroughly acquainted with such drugs which, as Thatcher declares, "it depends on the state of the stomach whether such medicines act or not!" Apparently you might as well ask Mr. Green, the celebrated æronaut, previous to his ascension in his balloon, to

what part he proposed to steer his course, with as much likelihood of a satisfactory answer. It is recorded of Paracelsus, the famous chemist, that he congratulated the profession on his own inventive genius in having discovered so great a number of remedial agents for the diseases of man; and we have Abernethy on the other hand declaring that the medical profession had invented a sufficient number of diseases for the whole of them. A student wading through such a mass is certainly to be pitied; one doctor indeed actually confesses that if a student followed the directions of the schools he would never succeed in practice. An anomalous and pitiable condition for a student of the medical profession! As alluded to by the chairman, many of the faculty are awaking from their dream and availing themselves, though silently and secretly, of the benefits resulting from the use of herbs; so long however as the public receive the benefit of them it is of little consequence from what source the good is derived. When the famous specific calomel was introduced and universally used by the profession, it promised to be a complete panacea for the cure of diseases, it was in fact used on almost every occasion, and truly has it proved a Goliah in slaying its thousands! Time it is that the superstructure of the medical profession were destroyed and an edifice more worthy of the age erected upon its base, that the cobwebs of past ages should be swept away, and that knowledge should be permitted to diffuse its rays and

disperse the ignorance which has so long held despotic sway. This will not be effected without a struggle. The humble instrument in the achievement of such an object will ever be subject to calumny, misrepresentation, and reproach, but the principles on which our system is founded are based on truth. A hurricane will not overturn it; and let our opponents take care that they be not involved in the ruin they contemplate for others. Under every opposition truth will sustain any man, for it bears him aloft under every depressing circumstance, giving strength, vigour, and determination to the most timid, and sooner or later must rise victorious. He that possesses truth incurs a responsibility, and he is bound to propagate it for the benefit of his fellow creatures, but if he fails in performing this duty he deserves to be scouted as much as the man that fosters and propagates error, and lives on the ignorance of others. Coming to London, as I have done, a perfect stranger, and yet receiving so many tokens of approval of the principles I advocate, is sufficient testimony that they are bidding fair to be soon fully appreciated, and that the public have ample proof there is no delusion. As it regards the use of poisons, there can be no question but that which destroys life can never be beneficial to the human frame. Man may escape the directly pernicious effects of poison on his frame as the debilitating effects of depletion, but is he prepared to say how far the deleterious nature of those remedies are affecting that system?

I shall have to refer again to this subject. It must be borne in mind that it is perhaps partly owing to a strong and healthy constitution that the patient survives at all. Mercury in its crude state is perfectly harmless, but united with other compounds is extremely deleterious. As Buchan says, you may give of the crude mercury several ounces but not more than a pound at a dose; and he also advises if it does not act by gravitation the patient should be turned heels upwards, that it might come back again. Mercury has been represented as the only remedy for a torpid liver, losing sight of the fact that such a state too often results from a previous disease generated in the system and produced by the administration of injudicious remedies. How often do we hear it said, I have never been well since such and such a fever! The very mercury itself will produce the torpidity of the liver. Some writers declare that calomel may be administered in any stage of disease; surely then I may administer cayenne pepper in every case. Mercury is so deleterious in its effects as to have been known to remain in the system for years, and one author remarks that "it serves only to diffuse the seeds of debility through the whole system; some prefer a poison, and because it is not quite so nauseous choose mercury that frequently occasions mischief never to be remedied. The improper or excessive use of many medicines may be recovered from, but not so easy a thing is it to remedy mercurial oxides,

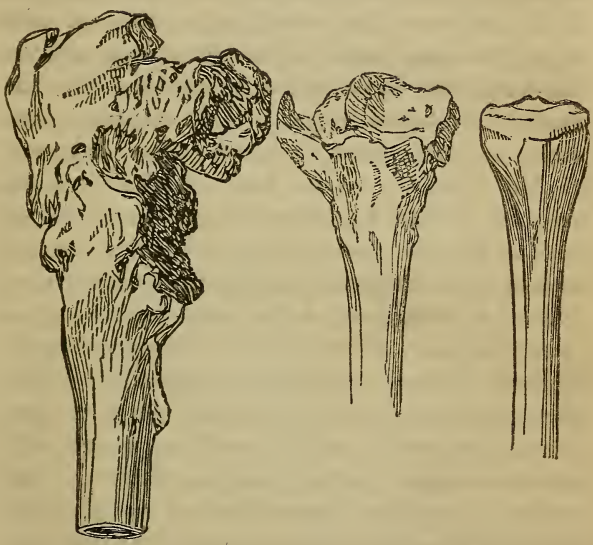
for they affect the constitution in a peculiar manner." Dr. Fowler once attended a lady to whom he had been administering the blue pill for indigestion. Four years after this circumstance he was again called in to attend her, and after giving a small portion of some slight medicine, he was surprised to find that she was completely salivated. Astonished at this result he questioned his patient as to the nature of the medicines she had taken in the meanwhile, and to his surprise was informed that nothing had been taken since his previous attendance, from which it was evident that the substance had remained lodged during that period in the system, and needed only to be roused into action and produce the most dangerous consequences. For thirteen months she remained in a state of salivation. It stands to reason that if such dangerous articles as prussic acid as well as the nitric and oxalic acids will produce death in large doses, injury must result from the administration of them in small doses. If three glasses of spirits will make a person drunk, of course one glass will make him one third drunk—the same principle may be applied to all poisons. I cannot but refer to an extract from an author I before quoted on the subject of poisons, as being very applicable to this part of my subject; and its being from the pen of one of your regular doctors, you will at once perceive I am treating the matter fairly. After making a few remarks on the subject of homœopathy and its tasteless infinitessimal doses, he

observes "Fancy aluminum, antimony, silver, arsenic, barium, bismuth, calcium, copper, iron, mercury, iodine, magnesia, lead, potassium, sodium, zinc, (all of which are to be found in the London Pharmacopœia of one hundred years' standing, with the exception of barium and bismuth), as remedial agents, and which are yet authoritatively retained, and which have been at one time or other plied as sovereign remedies for many inveterate forms of disease, although most of them, if not all, are abandoned by every practitioner of standing and experience as the *most dangerous* applications for any kind of medical purposes. Their metallic names sound with fearful import, and the authorities who thus retain them in their pharmacopœia as agents in the treatment of disease have much responsibility in so doing." As to the vegetable and mineral bases in combination with the several acids, he observes—"Some of these preparations, such as mercury with chlorine, are most dangerous when used by unskilful hands; and although their elementary composition have been given, their action on the living body as remedial agents has never yet been satisfactorily explained." As I give *bonâ fide* extracts from the works of your own medical faculty I cannot lay under the charge of making prejudiced and unauthorised statements to serve any sinister purpose. We allow that there are such herbs as hemlock, nightshade, &c., but as instinct has been granted to the different animals by which such dangerous herbs are avoided, so the Divine

Being has furnished man with intellectual powers and judgment by which he may likewise refuse them. It is my intention to furnish representations of all the most useful herbs to accompany these lectures, whereby facility may be given in gathering them. One case of dysentery I remember reading of where a person in the year 1829 had been largely bled in the arm, had 50 leeches to the abdomen, and during the first four days of the disease, in addition to extensive mercurial frictions, swallowed 216 grains of calomel. His face was swollen to an enormous size, every tooth loose in his jaws, and for six or eight weeks he could eat no solid food. The same person had a second attack in 1836, but was compelled for want of the usual medical attendance most fortunately to have recourse to far simpler treatment of sponging and fomentations by which plan alone he recovered very rapidly. It is by such means as the above that individuals' frames have been made a complete walking barometer; they have been troubled with cold chills, sore mouth, looseness of the teeth, pains in the head and a train of evils have resulted hurrying hundreds to a premature grave. Such a charge can never be laid against cayenne or any other botanical remedy. If, as Mr. Leeson observes, such articles as mercury with chlorine are so dangerous in unskilful hands, what a risk a patient runs lest he may have one of those unskilful attendants! and how necessary that students should be made thoroughly acquainted with the real knowledge of the various chemical

compounds given them in the shape of medicine. A similar case to one related before just occurs to me. It was a case of indigestion in which a diplomatised doctor prescribed to a lady a course of blue pills, and a few days after he prescribed a small dose of nitric acid; in six hours after she was a corpse. A post-mortem examination showed that nitrate of mercury had formed in the stomach and had caused death. What think you was the punishment awarded for this offence? *A suspension, only, by the faculty, of the benefits of the medical society for twelve months.* When a case occurs in which some of our agents have been implicated what an outcry has been raised! What a compound when sugar of lead and sulphuric acid are combined! and yet this junction of an alkali and an acid forming a neutral salt has more than once been administered, thus effectually destroying and neutralising the nature and quality of the ingredients. Corrosive sublimate is recommended as a specific for cutaneous diseases. This is a powerful poison and when given in large quantities produces salivation accompanied with terrible consequences. Rheumatism and painful nodes of a scrofulous character are often caused by its use. It will also attack the bowels and produce violent purging and sometimes the discharge of blood. When it attacks the mouth mortification has been known to take place, and it will cause the glands to ache and the bones to rot and become carious. I had to attend a boy that lived in the town of Hull, who had been salivated to cure a

scorbutic fever and lost his jaw-bone through the use of this pernicious drug. It is a pity but there was some law to compel the faculty to swallow their own drugs; there would not then be the readiness to foist their drugs down the throats of others. I here present to your view a



limb that has been operated upon by mercury and which is as light as a feather. The stomach in such a manner is worked upon by preparations of mercury till it becomes completely diseased. The preparations of antimony caused the imprisonment of one man, yet it is still used, and has been given even to children to promote per-

spiration, and sweet spirits of nitre have been given for the same purpose. These are both common enemies to the bodily frame and the capabilities of the system are called into play to throw off such an enemy. Nitric acid is also said to be a tonic, and a person having this drug given to him was told that in hanging up the bottle he was to be careful and not let the acid touch the string else it would soon eat it through and the bottle fall to the ground, and yet this dangerous liquid was to be admitted into the vitals of the human frame! As it regards arsenic many accidents have occurred. One happened at New York in which death resulted from an overdose of this deleterious drug. At a loss to account for the circumstance the scales were examined and a common house-fly was found to have adhered to the bottom of the scale, occasioning an extra weight. An extra dose of arsenic produces the most dangerous results in a quarter of an hour after—sickness, distress of stomach, thirst, burning heat in the bowels, violent vomiting, severe colic pains, excessive painful purging, fainting, cold sweats, cramps and contractions of the legs and thighs, extreme prostration—death! Oxalic acid has been frequently mistaken by young apprentices in druggists' shops for Epsom salts. In the town of Burnley, Lancashire, in one case a lad during his master's absence was asked for an ounce of Epsom salts, and the lad went to a drawer and looking inside fancied that he had got the right article. He packed up the ounce and the customer left. The

young man on coming in shortly after, noticed the drawer open and questioned the lad, when he told him he had sold an ounce of Epsom salts from it. The horse was immediately saddled and a messenger sent with all haste, but it was too late—the dose was taken and the man launched into eternity. I have a diagram of another kind to show my audience. Nitric acid is said, as I observed before, to be a tonic; but you will say a very pretty article to be introduced into the body after such an exhibition as this old woman's apron which from accident with the cork became sprinkled all over, and I purchased it from her as a curiosity. Hydrocyanic or prussic acid is so virulent a poison that one drop in a pure state placed upon a dog's tongue will immediately kill him. A few drops to the eye will produce similar effects, and yet a drop sufficiently diluted is esteemed a tonic! Poisons are without doubt opposed to the healthy action of nature; it is an enemy and the various symptoms produced are an effort of nature to expel the intruder. As a proof why should weakness and debility result from them, whereas a proper remedy in accordance with the principles of life would impart strength and invigorate the system instead of diminishing it. Hence we hear so much of tonics being required after such a procedure. In observing upon opium which is a production from the poppy I must tell you as I hinted before there are poisonous plants as well as minerals, and this is one I would discard, though it be a herb. It is

a powerful narcotic poison acting directly on the nervous system and in large doses produces tremors, delirium, convulsions, and apoplexy. I have a specimen of a stomach after taking opium. One author states, "In cases where death has ensued from opium the stomach has been known to exhibit some livid and dense spots, and in some instances gorged with blood." In the East and in China opium has been very extensively used and very numerous have been the deaths resulting from its use. In the latter portion of the world (China) its use was interdicted, so fatal had it been. I would caution all mothers to beware of the baneful effects of such narcotic poisonous mixtures as Godfrey's Cordial so frequently administered to their tender offspring to induce sleep. Many, yea very numerous have been the instances where overdoses have been given and it has been the sleep of death, therefore this injurious practice cannot be too strongly condemned. Dalby's Carminative is another of these pernicious compounds. Godfrey is given to children, which renders them incapable of crying, for there is much opium in it. Many druggists have sold several gallons a month of this Godfrey's Cordial. Paregoric is another preparation from opium too often given to children; but all narcotics are injurious for they prevent digestion, destroy the system, and interfere with a healthy circulation of the blood. A question is asked by one of my correspondents if quinine is good for promoting the appetite and if I would re-

commend it. It is a preparation from Peruvian bark and is not congenial as at present prepared to the system. A man might as well expect that a horse would be benefited or would prefer sulphate of oats in preference to the real article. Let the system be properly righted and there is little danger of there being a good appetite for food. There is another thing frequently lost sight of and that is the abominable practice of adulterating drugs. If a man must have physic, at any rate the least he can expect would be to have it pure. I have no objections to your diluting rum as much as any one can possibly desire it, but to adulterate drugs appears to me a most unholy practice. If one must have such remedies for disease, at any rate let them be genuine. At one druggist's I found a customer applying for calomel and was informed that there were three different prices of six shillings, eight shillings, and twelve shillings, per pound; so the customer a little puzzled decided upon the article of eight shillings per pound. Another came for a pennyworth of mustard of which one ounce was given. I expressed my astonishment at the circumstance of its cheapness and was told by the man that he mixed flour with it to such an extent that he obtained sixteenpence profit in the pound, while flour was only one shilling and eightpence per stone. True he might have put in a worse thing than flour. With regard to the secrecy adopted by the medical profession I would just remark that if you employ a mechanic at the rate

of ten shillings per day, have you not a right to inspect his labour and make yourself thoroughly conversant with the work he is performing? and why should it not be so with your medical attendant? If you dare to ask him you are at once put off with the observation that the course he is adopting it is not possible to explain to one that is not scientifically educated, and yet your lives are placed in his hands. If you receive a prescription there is so little confidence felt in the judgment of your chemists, that you generally are not satisfied unless the information be sought two or three times for fear of a mistake. One of my chairmen once informed my auditory that a certain physician had called upon him who had been taken suddenly ill who actually confessed that he was afraid to prescribe for himself though he could for others as he had done so once and nearly killed himself. He thus acknowledged the little confidence he felt in his own remedies. That is not the case with myself, for so confident am I of the harmless nature of the herbs I administer that I am always ready (and have frequently done so to satisfy my nervous and timid patients) to take the dose first. I acknowledge that cayenne pepper is certainly a powerful stimulant but with this great advantage it is not the least inflammatory in its action, and if procured *pure* it will prove a most valuable article; but in many shops it is mixed with red lead or ground logwood, the former selling at threepence and fourpence per pound while good cayenne is worth fourpence and

sixpence per ounce. Fortunately there are no adulterations in the natural productions of the earth, and I have been at considerable pains to procure my cayenne, especially pure, by having it sent direct from the place. Not only are your drugs sold adulterated but not unfrequently has it happened that your medical man has not been in a fit state for the duties required of him. A case of this kind I remember seeing in "Pinney's Code of Health." A doctor, an eminent physician, happened to be sent for one evening, after having indulged at a convivial meeting, so that by the time he had whirled to his patient's door he was very ill qualified to decide in any case of difficulty. He made shift to reach the drawing-room and seeing a lady extended on the sofa, assisted by a female attendant, he by a sort of mechanical impulse seized her hand, but finding himself utterly unable to form an opinion on the case he exclaimed "drunk of a truth" (meaning that *he* was in that unfit state) and immediately made the best retreat he was able. Feeling rather awkwardly at this adventure, he was not impatient to renew his visit, but on being sent for on some other occasion, he took courage and was preparing an apology, when the lady presently removed his apprehension by whispering these words in his ear :—"My dear doctor how could you find out my case so immediately the other evening? it was certainly a proof of your skill, but for goodness' sake not a word more on that subject." A similar affair occurred to a surgeon while attending a mid-

wifery case at Birmingham which happened to be of a more lamentable character. The surgeon was in such a state of inebriation as to be unable to perform his duties, and the woman's life was sacrificed, for which he was sentenced to twelve months' imprisonment. I was once asked if I used hieroglyphics in my prescriptions, for some have not been able to make out my writing. I would reply that all the medicines I make use of are contained in my "Guide to Health" which may be obtained at my various agents. I have an extract taken from the "Manchester Guardian" some time ago: "On Saturday afternoon a woman named Mrs. Mallinson, residing in Clock-alley, about thirty-five years of age, whose *accouchement* took place about five weeks ago, and who since that time had been an out-patient of the Manchester Lying-in Hospital, died in consequence as it was supposed of some improper medicine having been administered to her. An inquiry was consequently set on foot into the circumstances of the case, and Inspector M'Mullin obtained possession of powders which had been prescribed for the deceased, and one of which she had taken, and also the prescription which was written by Mr. Runcorn, the house apothecary of the hospital. Information having been conveyed to the borough coroner, an inquest was ordered to be held upon the body of the unfortunate woman on Tuesday morning at ten o'clock, at the house of Mr. Merrit, White Lion, Todd-street, when it was fully proved that an improper medicine had been

given her. The surgeon's prescription was three grains *pulv. strych.* and the person who dispenses at the hospital took the three grains from a bottle labelled *p. strychni.* It appeared in the evidence that this person, Mr. Cockburn, *although* he had been in his present situation as dispenser eighteen years, knew nothing of the nature or properties of the various medicines. He was given into custody. An analysis of the powders taken by the woman was then ordered to be made by the coroner. The inquest was adjourned to Friday at ten o'clock. Mr. C— was afterwards discharged, but was required to be in attendance on Friday. [We are glad to find the coroner seems determined to do full justice, so far as he can, to the poor dead woman."] Where is the reparation made for such mistakes as laudanum when given instead of paregoric? If a tailor makes a coat for you and it proves a misfit, or a shoemaker makes you a pair of shoes that you cannot get your feet into, you can return those articles and the mistake can be remedied; but if through the carelessness of a chemist's assistant or rather a medical attendant's the father of a numerous dependant family is snatched away and they are thus plunged in distress and want; or it may be a much valued friend is severed from an admiring and affectionate circle, What can repair that loss? Can any punishment inflicted upon the delinquent repair the mischief? Many tradesmen, quite unacquainted with the nature and appearances even of drugs, have under-

taken the sale of them in various country towns where no regular chemist resides. From this circumstance much mischief has arisen. It was only the other day that a family of twelve with four neighbours partook of a quantity of arsenic mixed up in pancakes, which article had been sold for carbonate of soda. Fortunately the quantity was small and the assistance of a surgeon from a neighbouring town was very prompt else the results would have been most disastrous. A glaring instance of extortionate demand, alas! too common in our day occurred at Leeds. One of these so-called *gratis* doctors had prescribed for a respectable female in that town and directed her to go to a certain druggist with a four-ounce bottle, and she did so, the bottle was filled, two pills and two small powders added which the man charged her 4*s*. 6*d*. A short time after requiring more she had the same made up minus the powders for which the man intended charging 4*s*. The person on pretence of going for the money tripped into Johanna's in Briggate, and inquiring first the charge got the articles made up there. And what do you think the charge was? Fourpence—neither more nor less. Neither of the portions however did any good, but 3*s*. 8*d*. was worth saving at any rate. A compact is in many instances entered into with the druggists by the doctors, by which both parties are benefited and the public (the poor especially) are wronged out of their money. I have frequently stated that the medicines prepared by the botanic system might

be taken with perfect safety. I remember a humorous occurrence that took place with regard to a poor old Irishwoman. As directions on the bottle sent was written "½ a wine-glassful to be taken," &c. Not having her spectacles on she did not notice the figure 2 below and therefore read the directions wrong, and she accordingly took one glassful of the mixture. Her son shortly after going into the room, seeing the bottle took it up and read aloud "half a wine-glassful to be taken," &c. "What," roared the mother in evident alarm, "what is that you say?" "Half a wine-glassful." "Stop," said she, "half did you say?" "Yes," said the son. "Then it's *pysin'd* I am," and she threw herself into the chair and putting her hands to her sides she commenced rocking to and fro and roaring like a bull. "It's *pysin'd* I am, run for Dr. Coffin, run for him." A girl accordingly came running on for me, without cap or bonnet and only one shoe on, to tell me the doleful tale. I hastened to set the poor woman's fears at rest and found her certainly in a pitiable plight rocking herself in the chair and bewailing her double dose. "Don't be alarmed," said I, "bring me the bottle and a wine-glass." The woman at this opened her mouth almost wide enough to swallow me and seemed overcome with astonishment when she saw me pour out a wine-glassful of the mixture, and wishing her a very good health, I drained it to the dregs. She then let go her sides and exclaimed "Well, it's better

now I feel." A correspondent asks about the course to be pursued in lumbago, saying that it is not given in the "Guide to Health." Our friend is mistaken on that point. In the chapter on Life and Motion you will find the course to be pursued, namely, the restoration of the equilibrium. This is an interference with it and the same means should be adopted as in rheumatism, tic doloureux, &c. During one of my lectures a doctor brought forward the subject of lobelia as a poison and challenged me to take it, and I engaged for £100 to do so. He objected to that, but I farther engaged to do so provided he would mix together nitric, sulphuric, and prussic acids, antimony, henbane, opium, arsenic, oxalic acid, &c., and I would engage to mix up 480 grains of lobelia, cayenne, and various other ingredients, and we should each take up our mixtures by spoonsful. This offer was made at Northampton, but we have never heard from that doctor since. I do not hesitate to say there are no diseases for which herbs are not appropriate, as will be explained in the succeeding lecture.

LECTURE IV.

On Herbs and their Applications.

Herbs gladly cure our flesh because that they
Find their *acquaintance there.*—HERBERT.

Mr. Chairman, Ladies and Gentlemen,—

While Linnæus has made a scientific classifi-

cation of herbs and has arrayed them according to various rules there is still a further classification needed. It is calculated that there are in the vegetable world upwards of one hundred thousand species of plants, trees, &c. The object of systematic botany is to arrange this vast assemblage of the productions of Nature into their various tribes, genera, and species, according to their forms and structure. Such knowledge is unquestionably of great use and tends to facilitate the progress of the student in the medico-botanical practice. Without some such arrangement as this we should be at a loss in describing a plant so as to make ourselves understood by others. So far the labours of Linnæus have been of great service; but as I stated before there is another and more important object to be obtained, and that is the medical properties contained in some plants, their adaptation to the various diseases of man, as also the injurious nature of others. Here is indeed a field of great extent opened to the inquiring mind and worthy of him. Amos Eaton of America, as referred to in my "Guide," was a professor of botany and the author of a valuable work entitled "Manual of Botany for North America," and perhaps few were equal to him; yet even he was in error regarding lobelia, for he had classed it as an annual whereas it is a biennial plant. About the year 1833 I called upon the professor and inquired if it was not his intention to publish a new edition of his work. He said he had such an intention. I then

said he would doubtless be glad to be set right on any given point that his work might be as correct as possible. Having intimated that he should feel grateful for the correction of any error I proceeded to explain that lobelia inflata was not an annual but a biennial plant. He was sceptical on the point and I engaged to satisfy him of the fact. The following day having procured specimens of the plant I showed them to the professor, but he took it to be Saxifraga; a plant of the class *Decandria*, order *Digynia*. That I told him was an astringent, and therefore if he considered what I held in my hand was such he would take a little and chew it. This however he declined, and I charged him with his fear of it being lobelia and that he expected it would make him sick. I engaged to go with his friend Professor Hall and show him the plant, stating that having flowered as he was aware the previous year, that being about the month of flowering (July) would be a criterion to judge by. I went with the professor and found as I expected, the leaves lying flat on the ground, the plant evidently not having produced any flowers that year. Eaton was convinced of his error and generously acknowledged the fact in the next edition of his valuable work, in the following words:—"This plant has hitherto been considered an annual plant. The error has been shown by Dr. Coffin, of Troy." Culpepper published a herbal and amongst other things contended that plants should be collected under certain planets—

a mistaken notion that obtained at the period of his history extensive circulation. He died in 1654. It is needless to assert that we entertain a very different opinion on that score. All herbs should be gathered when in flower, leaves when full grown, the barks in the spring when they will peel easy, and the roots when the plant has done growing. They should be dried out of the sun and not exposed to the night air, and when dry kept in a dry place and free from the air. I regret that in some of the editions of my "Guide" this direction has been omitted. It would be advisable to select a certain number of the most useful plants, diligently examine them, obtain every information regarding them and their adaptation to the various diseases to which the human frame is subject. Exploration into the extensive field of medical science can be pursued by degrees, effecting good and dispensing benefits in the meanwhile. There is a fear in the minds of some people in applying for advice to the medical faculty. A poor old woman (as stated by one of our friends) was seized with the cholera, and had said she was afraid to send to a doctor. It would be thought very strange for a hungry person to fear applying to a baker or a butcher for food; but the fact is, letting alone the matter of confidence in the remedies prescribed, there is generally such a terrible long account thrown in for payment at the close of their torturing treatment that it becomes a matter of serious consideration whether you are likely to have

the means of paying that account. Again many of the doctors fearful of not being paid, have refused frequently to see the patient till the bright fee glistens in the palm of his own hand. As Shakspeare says, "Above all things put money in thy purse," a caution this, there is alas! no necessity of urging upon one party. In most of the diseases to which the human frame is subject healthy stimulants are the chief remedies. As has been frequently enforced upon your attention heat is the principle of life and is an indispensably essential to the system. Baneful narcotics are frequently administered by the faculty but the practice I repudiate, for they act not in accordance with the animal economy. The chief aim of the medical botanist should be to assist Nature in exterminating disease and hence act in accordance with her laws. When the frame is healthy, as a result sleep will be at command, and will then and only then refresh the system. All narcotics composed of opium alcoholic spirits &c., cause the human frame to feel a strange depressed inertion or lassitude, not unlike the feeling of a debauchee after a night's carousal. One excellent precaution which could not be too highly recommended is a preparation, as for instance the throwing off a coat previous to exertion, when perspiration is anticipated. A case in point at this time occurs which will sufficiently explain the matter. I have been ill all this day, indeed so much so as to be hardly able to sit up; now had I taken calomel so generally recommended by the

faculty, I should not have been in a position to have lectured this evening, but you perceive I am now taking a stimulant to enable me to perform my duties. It is not the stimulant of alcoholic spirit evanescent and transitory in its effects, and far too often resorted to, leaving the frame more exhausted than before; but our composition powder composed of harmless ingredients. My practice of throwing off my coat has often excited a smile, but I am apt to wax warm and I have no sympathy with the cold formal automaton-looking precise lecturers that appear as if *feeling* for the subjects they were advocating was out of the question, and appearing to possess in them no interest whatever. A lady having heard something of medical botany proposed to her friend to purchase a copy of my "Guide to Health;" she however determined to defer it till after she had heard one of my lectures. She was so struck with astonishment at seeing my coat pulled off, and my entering so warmly into my subject, that she at once considered me mad; but when her friend possessed of more reason and judgment than herself, properly explained the matter to her as being a politic expedient too often neglected, she was ashamed and chagrined at the rash opinion she had formed. What I would ask would be thought of a blacksmith at the forge wielding his ponderous sledge-hammer with a heavy coat on, muffled up as though taking a journey in an open waggon in the depth of winter? Nature has provided many stimulants but there are many

diseases brought on by excesses of various kinds, and others are engendered by the administration of poisons. To meet these cases we have found it necessary to procure articles from other countries—I allude to *cayenne pepper*. The strongest and most serviceable for our purpose is procured from Africa. One of our friends recently told us of a patient, to whom he had administered a good dose, complaining that it had taken all the skin from the roof of his mouth; but it appeared he was soon healed and his skin restored, for the mouth was not inconvenienced for an hour. It were well if in every case skin could be so quickly restored. African cayenne pepper is reared beneath a vertical sun on a sandy soil. It grows also in Asia and America; those bearing the larger berries flourish chiefly in the northern regions and are used in their green state for pickling and other purposes of a domestic character. This is a pure stimulant and may with confidence be employed wherever a stimulant is required, but most of those employed by the faculty are composed of narcotics to a greater or less degree; and some think all stimulants are so composed but this is a very erroneous idea. For exciting a profuse perspiration, restoring and keeping up the vital heat perhaps few can equal it. It is useful to the digestive organs and acts powerfully on the salivary glands, the heat diffusing itself in the system is retained longer than by the means of any other stimulant. The parts cramped and contracted with pain are speedily relieved by the powerful heat

of this stimulant. I have remarked on a previous occasion how much this valuable article is adulterated with other things of a poisonous nature, as red oxide of lead oxide of iron coloured oatmeal and other ingredients besides those I before told you of. I would refer you to my "Guide to Health," page 84, 20th edition, for an extract from Hooper's Medical Dictionary on this subject. Capsicum the

CAYENNE PEPPER.

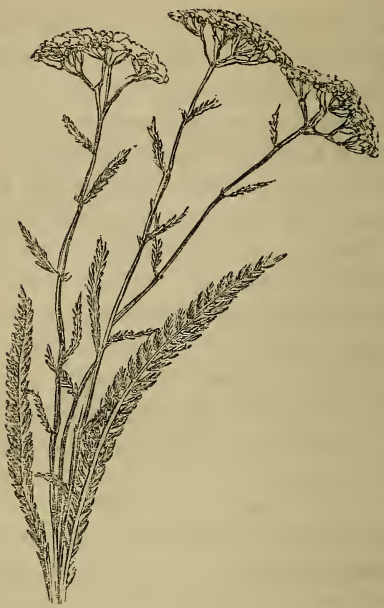
Latin word for cayenne is derived from *capto*, to bite; its taste is hot biting and pungent. "It is much used as a condiment and proves highly useful in correcting the flatulent tendency of certain ve-

getables thus bringing them within the digestive power of the stomach."—*United States Dispensatory.* By strengthening the digestive powers it renders them so active as to counteract the production of gas which is so uniformly engendered from certain aliments when received into a weak stomach. When speaking on the subject of fevers I shall have to introduce this article again to your notice as extremely serviceable in such cases, combined with lobelia for which it is an excellent pioneer. It is a simple excitant and the circumstance of its fulfilling different indications is to be explained on the principle of its concert of action with the physiological laws, which correspond with every rational intention of cure. An outcry has been made that it is inflammatory in its effects, but how can that be when you may actually make a poultice of it and put it on a sore indolent ulcers and cancers and by procuring a healthy action in the parts they will rapidly heal up and leave no trace behind to tell the tale? In rheumatism and gout it is extremely useful, also scarlatina sore throat colds and various acute attacks. Now the colour of the pure African pepper varies from a bright scarlet to pale red; but exposure to the light for a long time causes it to lose its colour. I hold in my hand three bottles containing each an infusion of cayenne procured from the druggist. Into one I have put copperas which detects the presence of logwood, hence its black appearance, the addition of another article or two would make pretty good ink. In the second

bottle I put both alum and copperas and thus prove the article is pure which is our own imported cayenne. In this third bottle by a similar process I find red wood, forming a red dye. Sometimes the article has been mixed with salt, as the druggists say to prevent it from fermenting. With such pernicious adulterations is it to be wondered at that the beneficial properties of this useful article should be neutralised and that there should be such an outcry against it? Taken in its pure state and in proper quantity as I have said before a more valuable stimulant could not be used. A man overloading his stomach by eating too plentifully of a beef-steak and thus deranging his digestive organs is no plea against beef-steaks. To prove that cayenne pepper is not inflammatory it is only necessary to refer you to a case in which I restored the use of two eyes to one patient which will be found in my "Guide to Health," page 264 of the 20th edition. This is a case sufficiently convincing; is it not satisfactory? Many in this assembly can bear similar testimony, far better than any hypothesis or fine-spun theories. Were a little dust to be blown in your eye, that would of course cause pain and create inflammation too, requiring to be taken out again, but you may leave cayenne in and it will do it no harm. The question has been asked—Would you give cayenne pepper to children? Certainly I would even at birth, and to those apparently still-born, who have been by this article as well as by lobelia, resuscitated and

brought back to life. Though as I have frequently said it will stimulate powerfully yet it is perfectly harmless in its nature. Ginger is another most powerful and useful stimulant though not so much so as cayenne. It is indigenous to Hindostan and is cultivated in the East and West Indies, but the Jamaica ginger is the best. It is very serviceable in pains of the stomach and bowels as well as indigestion, and it is also useful in pulmonary complaints and when chewed produces a flow of saliva. After lecturing I have found great relief from it. For keeping the system in that genial state so essential in this varying climate, especially those who have suffered from an affection of the lungs, it is found exceedingly valuable, and it may also be given to children, when they are *said* to be cutting their teeth. We grant there are stimulants used by the faculty but they are volatile; such as ammonia camphor and even mustard, but unlike that of cayenne the effect is soon over. Horse-radish is very much like mustard. Speaking of horse-radish a laughable instance occurred at an hotel in America. A table being spread out for dinner this white substance scraped, was amongst others placed thereon, the nature and properties of which two Irishmen alone in the room knew nothing of. Irishmen like too many Englishmen are averse to showing their ignorance. During an interval of conversation one of them unseen by the other, snatched up a portion eyed it attentively, and then swallowed a good dose of it. The effects were soon apparent:

a profuse perspiration broke out and tears fell fast and thick from his eyes. His companion struck with the sight expressed his wonder and exclaimed, "Why Pat what be the matter with he?" Pat still feeling a little pride and unwilling to acknowledge the real fact replied, "I was just a-thinking as how it be just about twelve months since my poor daddy died." A few minutes after the other prompted likewise by curiosity did the same trick, which was attended with like consequences. Seeing the tears roll plentifully down his cheeks, his companion inquired what was up with him. He answered, "I was just a thinking a pity it was you had not died when your daddy did." In the early stages of disease few herbs are more useful than *yarrow*. It is found in abundance in fields, hedgerows &c. and its leaves are similar to a carrot. A circumstance occurred in my early life which will illustrate the virtues of this plant better than any description I can give you. An itinerant speaker of the Society of Friends who professed to know something about medicine, stopped at my father's house and after making himself comfortable, he during the evening was asked by my brother what was good for a cold. The answer given was "Take a pint of yarrow-tea made strong and hot, on going to thy bed, put a hot brick to thy feet wrapped up in a cloth wet with vinegar and thou wilt surely be well in the morning." This appeared a very reasonable answer as my brother well knew that nothing was better for it than a



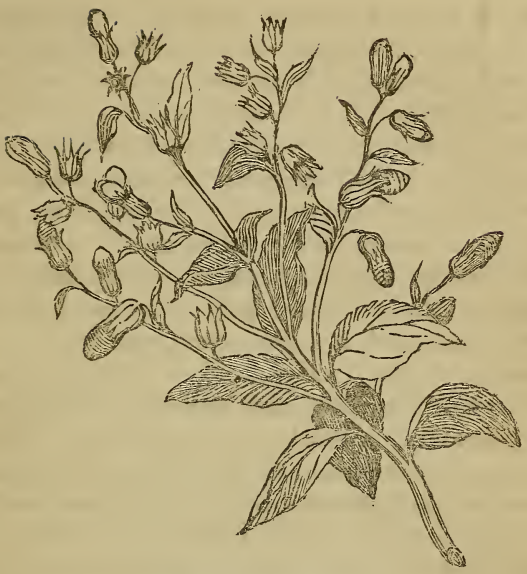
YARROW.

good sweating. He then asked what was good for rheumatism. "*Take a pint of yarrow-tea made strong and hot on going to thy bed put a hot brick to thy feet wrapped up in a cloth wet with vinegar, and thou wilt surely be well in the morning!*" He asked further what was good for rheumatism and received the same answer. My brother tasked his ingenuity for all the diseases he could think of and the reply was invariably the same. Would that most of the drugs sold by chemists then were banished from their shelves and such a

herb as this substituted! for as I have said in my "Guide to Health" on this subject, most diseases have their origin in cold, by which heat or the vital principle is injured or impaired, the natural passages stopped, and the functions of the system deranged. A diaphoretic or sweating medicine in such a case acting most beneficially and in accordance with the system, at this stage remedies the evil. It not only equalises the circulation but acts as a mild strengthener, exerts an influence upon the kidneys promoting urine. It is extremely useful in scurvy old sores colic cramps and bowel complaints. *Vervain* you will find an excellent stimulating corrective as well as emetic; I have used it advantageously in small pox. One of our agents cured twenty-three cases with this herb. The fever was not allowed in these instances to run a prescribed period of time but was attacked at once. I saw it recorded in an old book printed in *black letter* that vervain had cured consumption. The virtues of pennyroyal (or *mentha* pulegium) as one of the mints, is so well known as to need no description. In some parts of the country it is cultivated for domestic purposes and in other parts it is found growing in the waste lands. It is a stimulant and aromatic useful in flatulence colic sick stomach and is an excellent diaphoretic. It has often been employed in fever for young children, and it is also very useful in female obstructions, hysterics, &c. Lobelia, of which there has been so much talk, comes now under our

VERVAIN.

notice. Medical writers state there are three kinds, inflata, cardinalis, and syphilitica, the first however demands our principal attention as the most important. I have explained at the commencement of this lecture that it is a biennial plant introduced in the present form in general use in this country by myself from America. It has



LOBELIA INFLATA.

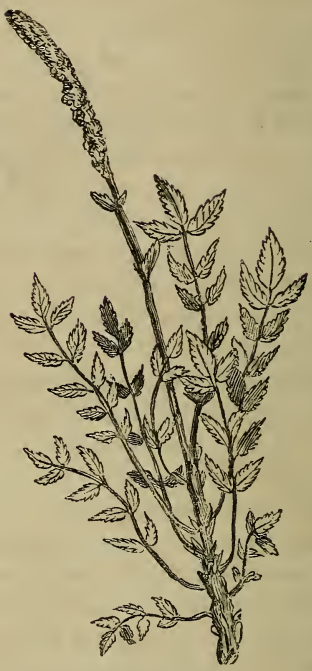
valuable emetic properties, is a sudorific nervine and antispasmodic, having no rival in the materia medica. It is a diffusive stimulant also, removes obstructions equalises the circulation promoting at the same time a healthy action throughout the system. It has proved a specific in that dreadful disease hydrophobia; half a tea-spoonful of the pulverised herb is the usual dose repeated every twenty minutes till it operates freely. It is advisable to take first a warm stimulating tea similar to the composition powder. Croup in children has been cured by the tincture of lobelia and I know

not of a single instance in which it has failed. One child I attended I certainly expected the breath to leave its body every moment but after administering to it a tea-spoonful of the tincture, a jelly-like substance lay on the floor. The first cry the child made after expelling the mass was of Nature's prompting, "Mother, I am hungry;" a remedy therefore like this is invaluable. The tincture is prepared in the following manner:—take of the pulverised herb a tea-spoonful with half a spoonful of valerian root, mix both in two ounces of good vinegar; to a child four years old a dessert-spoonful may be given, but the quantity should be reduced to a younger child. There are many thousands throughout England that have received great benefit from this plant but how few can say that of calomel, or rather how many can testify of the great injury resulting from its use! The Senior Physician at Bath to whom I have before referred in my lectures, in speaking of mercury says, "It impairs the health by inducing costiveness and aggravates the system until cancer consumption white swelling bronchitis nervous affections &c., become fixed beyond the reach of either cure or hope." There is a dread of taking cold while under such medicines and if he should be so unfortunate wo to him, for his life is in imminent danger. Any one is welcome to convey the challenge to your medical college of Lincoln's Inn Fields that I will engage to swallow 480 grains of this medicine, and as they if they really

believe it to be a poison and are glad to get rid of me, they shall have the option of getting it themselves, and £100 shall be the stake. The fact is they do not believe it to be a poison. In page 288, No. 34 of the first volume of the Botanical Journal will be found one or two very important admissions regarding this plant as having been used with surprising success; in one case for twenty-seven years, by some of the medical faculty. In page 267 of the same work Jonathan Walker of Sheffield states that he had taken altogether about twenty ounces of lobelia and had witnessed the effects of this miscalled poison in fifty cases, where he had been requested to be present, the parties being aware of his having taken so much himself. So far from being a poison it is an antidote to a poison, and wherever a poison exists it will vigorously contend against and expel the intruder. Can that be said of a real poison? Lobelia has been given to a child who had taken sixty drops of laudanum through a mistake, and it was restored to life though apparently at death's door. The same was the case with the green leaves of the DATURA *stramonium*, or henbane, which had almost killed a child. Poured into a snake's mouth it had killed it, but applied to the bite of one the lobelia had cured the patient. A tablespoonful dose was given to a patient who had taken 120 grains of arsenic, enough to kill several men, and though the patient was insensible it restored him to life! Away then with such ridiculous non-

sense as the faculty are pestering us with, as lobelia being a poison, for had such been the case the 3,000lbs. imported by us into this country within the last few years, taken at the rate of sixty grains to a dose would have killed near 200,000 of her Majesty's subjects. I was called to see an infant, and when I arrived there was no need of any questions, for I saw the child frothing at the mouth, and I instantly got ready a dose of the prepared tincture of lobelia. It was indeed a desperate case and I feared it was destined to be death's victim and a tenant for the grave. I however called the next day, and was rejoiced to find the child playing merrily enough on the mother's lap, she having been in the habit of giving the child a tea-spoonful of paregoric and had given it laudanum in a mistake. Had lobelia then been a poison administered in addition to what had been previously given, a more instantaneous death could not have happened. I was called to attend upon a gentleman at an hotel who had one morning fallen out of his bed. I found him also frothing at the mouth and the thought at once struck me that it arose from poison; I took a table-spoonful of the tincture of lobelia and poured it down his throat, and it at once acted on the stomach and brain. I repeated it twice and ordered hot bricks to his feet and sides; before I left he began to vomit, and when I returned in two or three hours, he had had a refreshing sleep. "Are you the doctor?" said he; "Are you the person that has been attending me and saved my life?" I said I was,

and if his life were any use to him I was glad it was restored. He appeared ashamed of himself and confessed the deed he had perpetrated. I remember a person aware of the virtues of lobelia happen to witness a man bitten by a mad dog, who immediately ran to him and said he could cure him; a dose was administered and a vapour bath also, and the result was he was perfectly restored. A dose was given to the dog also and he was likewise cured of hydrophobia. The time is fast hastening on when all this unfounded prejudice will be swept away regarding the invaluable articles I make use of. There are various other stimulants as will be seen in our "Guide to Health," but I can only mention the most important of them, and I now pass on to notice astringents. Agrimony is a plant pretty well known, having a rather bitter taste, the roots as well as the tops of the plant may be used. A decoction has been found very serviceable in looseness, being of a binding nature as well aromatic and tonic. Hooper and Gray both speak of this plant; the former as being a useful astringent diuretic and serviceable in canker; the latter author mentions it as a vermifuge or expeller of worms; I have myself used it in dropsy and jaundice, it has also been found extremely useful in scarlet fever and for looseness of the bowels, the addition of raspberry leaves will prove very valuable as an injection. Ground ivy like the former is an astringent tonic and diuretic, and has been found serviceable in clearing the system of bad



AGRIMONY.

humours. Sir William Temple has alluded to this plant taken inwardly or applied outwardly as valuable for the eyes, and alleged a ten years' experience of its value in the remedy or prevention of stone. It will relieve gout and rheumatism, promote perspiration, quiet nervous irritation, hysterical affections, &c. At page 120 of the 20th edition of my "Guide to Health" full directions will be

GROUND IVY.

found for preparing it. Red raspberry leaves are rough expectorant partly astringent and tonic. It is useful in thrush, clearing away of ulcers and sores, excellent for children in looseness of bowels and while teething. It is extremely serviceable in pregnancy, in all cases of obstruction of menses or monthly terms. In cases of dysentery a constant use of a tea of this nature instead

RED RASPBERRY.

of the ordinary tea and coffee would be found far preferable, for it is a very safe remedy and accords well with the human frame. Clivers is another very useful herb a most powerful diuretic and still perfectly harmless, and mixed with gum-myrrh cancers have been cured with it. One young woman that had one on her tongue was speedily cured by clivers tincture of myrrh and composition powder. There is much talk of our composition powder and it cannot be too highly extolled, but I'll tell you

CLIVERS.

what there is much talk about, and that is strengthening medicines; now this is a very mistaken notion, they should be called correctives, for let the system but be in a proper state food is all the strengthening medicine that a patient requires. You will remember I spoke against the use of narcotics, recommending the expulsion of the disease as necessary, before sleep could be wooed to the frame, and that when such object was achieved, the sleep then would be refreshing and grateful to the system. So in this case thoroughly expel the disease and good wholesome nutritious food will do the rest. Bogbean is a bitter herb growing

BOGBEAN.

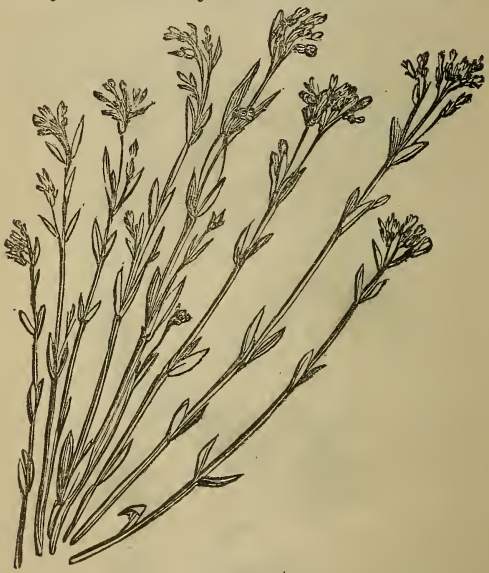
in the low marshy grounds, and will be found of great advantage in dyspepsia or indigestion. During the early progress of menstruation in females it may be safely recommended, and as a corrector of bile, it has scarcely a rival. It is very like the common bean in appearance which perhaps may have given rise to the name assigned to it.

Its colour is a deep green the flower of a purple tinge and when chewed leaves a strong bitter taste exciting the salivary glands. It has been used instead of hops in brewing beer and ale, the whole materia medica cannot furnish a more useful article. Horehound is a powerful bitter and expectorant, a perennial found in waste places and

HOREHOUND.

chiefly on a sandy soil. Though it has a bitter taste there is an aromatic flavour, and is much used in coughs and asthmatic complaints for loosening

the phlegm. A sirup of horehound and ginger root will be found very useful for children troubled with chincough. It may be reduced to powder mixed with half the quantity of ginger, one teaspoonful of cayenne and one of cloves well sweetened, taken hot at bed-time will be found an excellent mixture. Centaury or sanctuary is another of the so called



CENTAURY.

tonic medicines and is met with in dry pastures. It has been found very useful in disorders of the liver and kidneys, in cases of worms, and is used as an aperient. It has been serviceable in the itch also. Barberry bark this is likewise an excellent

BARBERRY.

tonic and a corrector of diseases of the liver, beneficial in jaundice, slightly aperient. The bark used as a decoction with the addition of cayenne has always been found serviceable in indigestion. I have used the term tonic because it is one of more frequent and current use amongst the public; but more properly speaking the herbs so designated are correctives and if you desire to be strengthened after the stomach has been previously prepared by such medicines I would prefer that the butcher and baker have the credit of that. Pursue this course

and you will need little of such medicines so designated by the faculty. In conclusion I would urge upon you the necessity of preserving the strength of the herbs by the care in which they are prepared. To preserve the essential oil of the aromatic herbs is a matter of great importance, and they should be closely covered up. I have known many cases where parties have received no benefit on this very account; the properties are not preserved. Experience is the best master in a case of this kind, you must be practical medical botanists; it will do you no harm. One of our agents was saying he would just as soon take a dose of lobelia as he would something to eat, convinced as he was of its perfect harmlessness. Honour your own judgment. There is an attempt at the present day to pass a new law to prevent such practice as ours, but it is too late in the day for such efforts as that, we can meet them on their own ground. We have our friends in the legislature, and there will be a struggle when we bring our forces in array, and I doubt not a successful issue. I am myself a regular practitioner in England, and I shall not rest till you all are equally privileged and all become doctors for yourselves in spite of them. Take the medicines I prescribe and I pledge you the word of one to whom honour is as dear as life itself, you will be lastingly benefited. My next lecture will be upon fever. Doctors say that heat is disease, then according to that a man dies for want of a little fever but this absurdity I will endeavour to explain to you on a future occasion.

LECTURE V.

On Fever.

Mr. Chairman, Ladies and Gentlemen,—

The subject of fever is one of the deepest importance, more especially as it has been said by one author that "more than one third die under its ravages." They must then die prematurely if there be any truth in the assertion that men should only die of old age. Alas! daily experience shows that persons of every age, from the lisping infant to the aged mortal bending under the weight of years, are alike the victims of fell disease. There is no subject so little understood as that of fever, and yet it has engaged the attention and exercised the talents and ingenuity of the medical profession for a long series of years. I sometimes wish I had the skill of the painter to depict on canvass the various distressing scenes that I have witnessed during my career of the awful and appalling ravages of fever; or the flowery language of the poet to portray the anguish I have felt myself and seen in others as the result of it. What heart has not been torn with sorrow at the loss of perhaps some faithful loving companion of his early years? How many friends attached faithfully to your interests have been snatched to an early grave! How many have been led to mourn over the loss of a husband or a wife, or fol-

lowed to the grave their lovely offspring on whom their fond affections were concentrated, and how many have seen all their earthly comforts swept from before their eyes, withering under this all-pervading and desolate storm! To each portion of the globe you turn your attention you see the devastating influence of fever. Multitudes have been hurried away by this unrelenting desolating pestilence. Cities once teeming with life are now silent as the grave. There once dwelt the beauteous maiden and the courageous and warlike youth, listening with delighted hearts, drinking in with avidity the lessons of the venerated sage, and enraptured with his eloquence; but the streets are now silent, trumpeting the awful tale of the ravages of fever! To find a remedy the skill of the whole phalanx of learned physicians has been spent in vain. Their only cry has been "it must run its course," and yet they administer all the various medicines that they think at all likely, and having exhausted their store of knowledge the patient is left to his fate till either death seizes his victim or a strong constitution is enabled to triumph over the disease. And under all this strange anomaly, the doctor, should the patient survive all this lancing and poisonous drugs, *he* is lauded as the means of saving the patient's life, whereas it has been the recuperating efforts of nature that has had to grapple with the operations of both the disease and medicine. It will be necessary to give a few of the opinions of the faculty on the subject

under consideration. According to Hooper's Medical Dictionary, a work held in high repute amongst the faculty, the term " Febris or fever is derived from *ferveo*, to be hot. The name designates a very extensive and important class of diseases, which although much diversified are generally conceived to have something common in their nature. In the wide acceptation the term fever has been applied to every case in which there is acceleration of the pulse, increased heat to the surface of the body, thirst, a more or less general disturbance of the functions of the whole system. They divide fever into two kinds, *idiopathic* (primary) and *symptomatic*. Symptomatic fever there is no doubt is immediately dependant on local disease or injury. With respect to idiopathic fever the general opinion of physiologists is adverse to the supposition that it is symptomatic inflammation in some particular organ. Idiopathic is generally divided into intermittent or ague; remittent; and continued, or synochus. The remittent fever never entirely intermittent in its progress but undergoing a marked diminution and exacerbation at periods more or less regular. Continued fever has been divided by nosologists" (you will understand that I am now only giving you a specimen of the jargon and strange notions of the schools) " into *synocha* or inflammatory fever; *typhus* or low fever; and *synochus* or common continued fever. Typhus fever has been known under the names of putrid, petechial, spotted, asthenic, jail, camp, low, malig-

nant, yellow, and pestilential fevers. Synochus is the most familiar form of fever. It varies greatly in its type according to the constitution of the atmosphere, the locality and the circumstances of those among whom it's prevalent; sometimes inflammatory at others typhoid. It was the opinion of Hippocrates that fever is an effort of nature to expel something hurtful from the body, either ingenerated or introduced from without. Beholding the violent commotion in the system followed by an evacuation from the skin and the kidneys, with which the paroxysm terminated, he ascribed the commotion to the fermentation, concoction, or ebullition, by which the noxious matter was separated from the sound humours; and the evacuations he described as the scum which such separations produced, or rather the discharge of this morbid scum from the emunctories (the excretory ducts of the body and the cavities containing fluids to be excreted are so called) that open externally." When Hippocrates was called from Cos to Athens by command of the emperor, the place being devastated by fever (that emporium of knowledge though not of the right sort for the exigency then existing), the command was accompanied by the presence of an armed force, for he had previously refused to quit his plough and sacrifice his quiet and homely occupations for the harassing turmoil of a city. On his arrival at the city his first care was to light a fire in the midst, even the marketplace, for the purpose of destroying the miasma.

By this ridiculed procedure the air was rarefied and a vacuum produced which caused a current. His next course was to order hot baths, not cold refrigerative medicines. He then administered hot medicated wines and not narcotics; as at the present day but powerful stimulants. This was indeed more like an angel's visit to that devoted city than of a human being, for the results were most glorious; three days after this visit the raging fever had left. Such had been the awful frenzy caused by the fever that men rushed with resolute determination to the loftiest pinnacles and hurled themselves headlong into the jaws of death. Galen had the same idea and this is the only explanation we have of fever for the long course of three thousand years, till the time of Sydenham who still adhered to it. Boerhaave's idea was founded on the doctrine of a peculiar viscosity (or clamminess) or lentor (siziness) of the blood. To the prevalence of this lentor he ascribed the existence of fever. The most triumphant fact in favour of Boerhaave's hypothesis is that the crust of the blood in inflammatory fever is often found peculiarly dense, but many of the fevers are without this crust. The abruptness with which fevers make their assault from sudden occasional causes, and in constitutions of every diversity, forbid the supposition in such cases that a lentor or siziness could be produced. Stahl, Hoffman, and Cullen called it a spasm of the extremities of the living fibre, a nervous spasm as produced by torpor

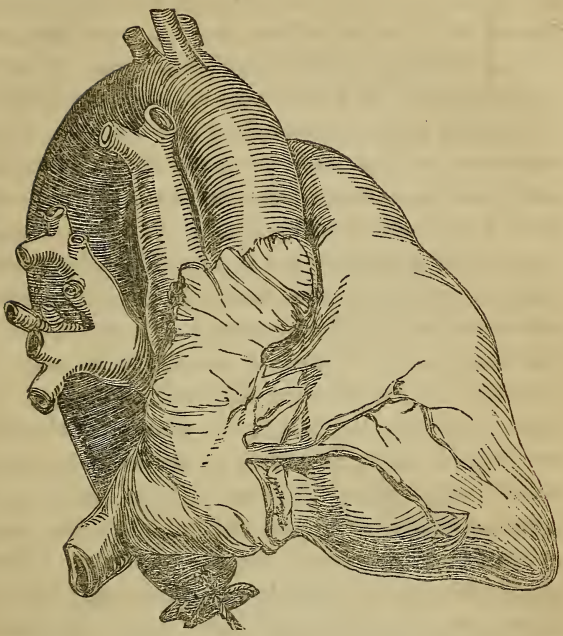
or inertness of the brain at the extremity of the nerves. Brown and Darwin founded their theory on the doctrine of accumulated and exhausted excitability or sensorial power. The Greek school believed fever to be a "concoction and critical evacuation of morbific matter." One more definition I will give you of Fordyce's, who says that "A fever is a disease that affects the whole system. It ffects the head, the trunk of the body, and the extremities. It affects the circulation, the absorption, and the nervous system. It affects the skin, the muscular fibres, and the membranes. It affects the body, and affects likewise the mind. It is therefore a disease of the whole system in every kind of sense. It does not however affect the various parts of the system uniformly and equally, but on the contrary, sometimes one part is much affected in proportion to the affection of another part." What then can we make of such conflicting statements as these? Is it to be expected that we should wade through the forty or fifty forms of what are strangely called fever? I shall use the term simply for the purpose of being understood, but I hope to set you right and convince you this night there is a remedy. Fever I found had laid six hundred children under the turf in Sculcoates' grave-yard, in the town of Hull, in the space of one year. One had mourned over five while another person had grieved over his seven. It has been somewhere said that a poor man's fever was allowed to run for ten days. As not much was to

be expected from him the faculty made sharp work of it, but a rich man was kept lingering for forty days or more. There may be some truth in the statement but if fever be properly understood by them would the doctors allow their own children to fall victims? Many instances have occurred in which they have so fallen, thus plainly intimating that they have no means of preventing such a loss. The practice of medicine is the only practice under heaven whereby a man may profit by his own blunders, and the great mass of mankind are kept in ignorance to a very great extent of many of their misdoings. There is no such thing as fever then, and in the common acceptation of the term, fever is not disease. What then is fever? It is heat though a disturbed operation of it. How then can heat be disease? We have a very important admission on the part of Hippocrates who alleges that "heat is a component and a principle of nature itself, in other words nature is heat" then if that be the case the question is naturally asked can nature be disease? Now there can be very little doubt that the faculty will acknowledge this to be the case, else why do we find them giving to their patients cooling, freezing, refrigerative medicines? We find them bleeding, blistering, and administering calomel to the patient to kill or destroy the fever, and after that, when they have got the disease under as they term it, they commence a course of tonics and stimulants. In many cases they find that they have brought him down just a trifle too

low and the patient dies. Now our point is to remove the fever without diminishing the strength, as the more politic course to be pursued, and attended with the least danger. We do not consider that in cases of fever that there is any necessity to open veins, and put on torturing blisters, or to give calomel or any other poisonous drug, and were I have had *fair* play, it must be fair play, not to be called in when the lamp of light is flickering in the socket and the patient's soul just about to quit its clayey tenement, I say in every case where I have had fair play I have always succeeded. Now there is as a cause of fever, loss of heat to some part or other of the human body, and as a natural result obstruction and weakness in the system ensues. I can explain this best perhaps by a cannon-ball made red hot. Suppose we introduce an instrument and perforate a hole through that ball, what is the result? A draught of air passing through the heat is found to have gone to the surface and in like manner heat is thrown to the surface of the body. Nature then commences an attack with the heat still remaining and endeavours to expel the intruder, which is cold, and thus you may account for the appearance on the skin. Now give nature a helping hand in this struggle and restore equilibrium to the system, and you will find the so called fever a friend, rather than an enemy. Your object unquestionably should be at once to expel the cold, clear away all obstructions, and you may then consider your work pretty near done. It is

therefore the cold that causes the excessive heat on the surface of the body by driving the heat out from the inside, or in other words as I said, it is a disturbed operation of heat in the body. This disturbance may arise from a variety of causes. One great evil frequently proceeds from putting on linen not properly aired, death having often resulted from this incautious practice. Sleeping in damp beds. How many have put their friends into what they call their best spare bed! and that friend arriving perhaps late in the evening, there has not been sufficient time to air the sheets. They have been hurried away steaming from the fire, and the servants have ignorantly fancied they were burning. Such mishaps may easily be avoided by making sure of the matter and getting within the blankets. Sitting in the rarefied atmosphere of a heated room near a broken window and rushing out of a heated assembly to a cold night air without any precaution. Sudden changes of weather on a debilitated frame, whether induced by fatigue or violent exertion; by long fasting, loss of rest, incautiousness as to diet, intemperance in eating or drinking, sedentary employment, great anxiety; and these things will render a person an easy prey to fever. Dr. Thomas calls it the too sudden application of cold to a heated surface giving a check to the perspiration of the body. Through the pores of the skin the matter exudes and is thus cast off from the system, by which means the frame is kept in a healthy state. To keep the pores open administer

such an article as yarrow and that plentifully, you will thus assist Nature in her efforts to throw off her enemy. A medical man adopting the course he does is similar to the conduct of a second in a duel, tripping up his friend's heels, which would be neither science nor justice. Were the truth known a vast number of diseases have their sole origin in colds. Pleurisy is an inflammation of the membrane that covers or lines the lungs, it is accompanied with a pain in the side, obstructed breathing, rapid pulse, and fever. This is another effect of cold. An obstruction is caused and then follows inflammation; the obstruction must first then be removed and the inflammation will soon take its departure. I will give you a short explanation that may prove useful; the human body is one mass of vessels; the lungs are small above and large below. The outer parts of the lungs are round where they line the inside of the ribs but the inner part hollowed to receive the heart. The right lung is divided into three parts or lobes, and by the aid of a microscope would be seen to present a number of small vessels, or bladders, or air-cells, making the lungs quite spongy. It is supposed that there are no less than one hundred and seventy millions of them in each lung, and when breath is drawn the air proceeds down the windpipe, then through the branches in the chest and fills the little bladders in the lungs to the amount of one gallon of atmospheric air in a minute, hence the importance of there being no obstruction allowed to impede respiration or breath-



THE HEART.

ing. The blood passes from the heart into the arteries, conveyed into the bladders of the lungs, enters in from the veins darkly coloured, and so receives its portion of oxygen without which there could be no health. Each gallon of air thus inhaled yields to the blood so drawn in twenty-one parts to every hundred. I remarked that the blood enters into these bladders, each of which as seen by a microscope is composed of a variety of intersecting channels. I remarked also that the

blood entered in dark, the oxygen purifies it and it passes out into the various arteries pure and red down the body; it is conveyed back again by veins by which time it has become again dark-coloured. The blood makes its way then into the lungs to be once more purified. How necessary then is it that the lungs having so important a duty to perform should be in a perfectly healthy state! The arteries and veins proceed through the system alongside of each other, sometimes so close that it is difficult to separate them, and often interwoven. Obstructions in the air-pipes or bronchial vessels it is easy to remove, but not so when they are allowed to remain long upon the lungs, for ulcers or tubercles are formed which according to the faculty is confirmed consumption. The necessity of breathing is apparent to every one and the lungs are thus kept in constant exercise. Rapid breathing causes greater friction by which less oxygen is taken up so necessary to vitality, the body sinks, the frame wastes and diminishes, and though a man's appetite may remain still if the oxygen is not retained which is one of the principal articles of combustion, the fire of life cannot possibly be retained. The blood is thus forced through the system at an accelerated speed and the whole machinery is deranged from the increased friction. The pulse beats ordinarily from sixty to eighty per minute but if it rises to 120 or 140 in the same space of time the frame cannot be expected to stand that and will soon wear out. The ulcerated lung must

still perform its duty and it is difficult to get at it, except through the means of the blood, not by robbing the system of it, thus debilitating and wasting the energies. Perhaps nothing will illustrate this matter of air better than the following experiment: take two bottles of clear lime-water, and with a straw blow for a few minutes into one so that the air from the lungs may pass into it; at the end of this time the lime-water will become white and milky, but let fresh or common air be blown with a pair of bellows instead of that, and the lime-water will remain quite clear. The warm air emitted from the body in breathing naturally ascends to the ceiling of a room hence the necessity of all buildings being well ventilated. If it is not so that vitiated air again descends below the heads of the occupants of the room and is again inhaled in its passage out through the chimney. No wonder then that paleness, weakness, colds, fever, &c., should result from the poisoned atmosphere of factories, confined rooms, &c. Too much stress cannot be laid on the necessity for proper ventilation, so cheaply as it may now be obtained. The prelude of fevers then is a sudden chill, the consequent closing of the pores of the skin, or a waterlogging the vessels of the frame. Heat is by that means thrown to the surface of the body and to restore health then you must create an equilibrium of the heat, but not by cooling refrigerative powders attacking the effects instead of the cause. Rather give a good dose of

yarrow, administer a vapour bath, and throw the patient into a comfortable perspiration by putting hot bricks to his feet, you will thus do him more service than all the depletion and blistering you can adopt. The subject will be resumed in a succeeding lecture.

LECTURE VI.

On Fever—continued.

Mr. Chairman, Ladies and Gentlemen,—

It has often been the subject of remark that persons in general are too indolent and too easily satisfied with the information gathered from others saving themselves the little trouble of satisfaction as to the truth of what they hear. Then perhaps a man has preconceived notions and gain has resulted from the promulgation of those opinions, and though he might have in the course of events reason to doubt the accuracy of his own or the superiority of others he still fears to come to the light, arising from the dread of censure or perhaps pride or stubbornness, which prevents him from acknowledging himself wrong. That, in a great measure, is the case with the faculty at the present time. It becomes all, thoroughly convinced they have the knowledge of a good in their own hands, to diffuse that good far and wide, for we are all mutually

dependant upon each other and God never designed that any man should live like a cipher in creation. For this purpose societies have been formed and man is called individually to leave the world a bit better than he found it, else he might as well have been cast on some desert or uninhabited island. You are called to elevate the condition of man in general, and I am glad to see this spirit gaining ground. I was thankful to hear the owner of the hall that I hire at a neighbouring town, a member of the Society of Friends, confess that my lectures had diffused more general knowledge on the subject of health, disease, &c., than any other means that had ever been adopted in that locality. Such an admission nerves and cheers a man in his strenuous endeavours to benefit his fellow-creatures. To continue the subject of the evening's lecture, you are all aware that the skin has its surface covered with pores and these pores emit or send forth the offending matter. It is therefore of the utmost importance that these million pores should be kept perfectly free from all obstructions, but these pores are sometimes contracted from the sudden change of temperature, or exposure to cold. This sudden chill may be caught in various ways, and one very frequent cause is the carelessness of persons rushing from a heated atmosphere into a damp, moist air without any extra clothing; getting wet feet and neglecting to change shoes or stockings. In wet or damp weather care should be taken not only to prevent wet but to retain the natural heat

of the foot. Too great a stress cannot be laid upon this important particular for persons are too apt to sit for hours in damp shoes or stockings, and imagine it of little consequence. I remarked that the pores are contracted, the equilibrium is thus destroyed within the body, the pressure is increased, the pulse is quickened, the moisture so necessary to the frame vanishes, for the pores being closed the steam cannot possibly escape. The blood thus passes through the body at a very accelerated speed and that pressure upon the nervous or sensitive parts of the body causes much pain. Now this excitement must be reduced for it is but the forerunner of inflammation, and if that ensues and seizes some vital part death may be the result. To achieve this object do not imagine I would rob the patient of his blood! By no means. I said there was a closing of the outlets and that it was unnatural that the pores should be closed. You have an enemy confined in the system; let him out and this is easily effected by promoting the perspiration through these millions of mouths graciously provided by a beneficent Creator. You thus aid Nature for a wrestle has taken place, there is a struggle; weaken not the system but let her have fair play. I was once stopped in my lecture by a person contending that both cold and bleeding promoted life, but I was soon enabled to prove to my audience the contrary, for on the same principle, if bleeding saved life, you may as well take away all the blood, for if any portion abstracted weaken

the system, a large portion or the whole quantity must take away life altogether. Contagion, miasma and gas exhalations from the earth are influences to which we are frequently exposed as much as drafts of air. When an epidemic disease seizes upon a number of persons there is generally much alarm excited through a fear that contagion must be inhaled at every breath; this apprehension has prevented their assisting their suffering friends, but this is erroneous. The wearing apparel, bedding, uncleanliness of any sort, long retained in that impure state, contain a more concentrated and contagious poison than the newly emitted effluvia or excretions from the sick. Such should be exposed to the open air immediately, for by neglect of this means small-pox, measles, typhus, hooping-cough, itch, &c., &c., are perpetuated, and febrile contagions from time to time diffused. The breathing of pure air is very necessary. Few are aware of the importance of keeping drains clear; the prevention of the accumulation of any offensive matter; all vegetable matter should be burnt as the most ready and expeditious way of getting rid of it. Stagnant pools are another medium of causing disease. Personal and domestic cleanliness, ablutions of the body, not merely the hands feet and face, but immersion by bathing is exceedingly important. I am induced to press these things much upon your attention in the expectation that you may again be visited with cholera having disease and death inscribed upon his bloody banners, sweeping remorselessly hundreds of

our fellow beings into an untimely grave. It will be well to be prepared for such an invader by guarding against any predisposing causes rendering you an easy victim to its attack. Napoleon when he moved his army sometimes said I will quarter on my enemy. I will pursue a similar course and make the doctors prove all I have said to be true. Over and over again have they asserted that fever must run its course. The whole practice of the faculty had been designated by one of their own tribe as a species of humbug and especially their treatment of fever. If therefore such be the opinion of the faculty how advisable would it be to wait patiently till the fever has taken its time as acknowledged by them, call in no medical man in the meanwhile, so saving your money till the expiration of that period. As this has been acknowledged on their part they cannot blame the public for acting on it. There are some fevers which if you have them once you cannot have them again, but why such should be the case cannot well be explained. Often is fever engendered by overloading the stomach and sometimes it is vile stuff too, such as alcohol which destroys and neutralises the effect of nutrition. A case once occurred of yellow fever. A young man named William Morrison had left his ship in Savannah, (see "Guide to Health,") and proceeded on shore in company of some friends. As many others he had transgressed the bounds of propriety, and catching a violent cold was seized with the yellow fever, and the doctor had made up

his mind his patient must die. He was deprived of water with the most peremptory orders not to touch it, for his life depended on it, but thin gruel he might take to his heart's content. Water contains a portion of oxygen which is a component part in the frame of man and were the air divested of this useful gas man would cease to exist, it is thus to the animal economy what oil is to the lamp. William was of course burning with fever and so thirsty as to be wretched. His doctor had given him up, therefore you may imagine his case was desperate. Near the place where he lay tossing with fever was a running stream and the rippling sound was very tantalising to poor William. He said to his companion "I will have some water," and Jack declared he would not transgress the doctor's orders. William however formed a determination. "Jack," said he, to his companion, that same night, "you have had a hard time of it, and you should have a snooze; now if you tie a piece of string to your hand you can go to sleep and I will call you if I want you." Jack was not loath to accede to such a proposal for he was weary with night-watching. Arrangements were accordingly made, Jack was soon sounding his trumpet and giving evident proof that a loud noise would be required to arouse him from his slumbers, William crawled on his hands and knees and managed though with great difficulty, to arrive at the stream, and as music is delightful to the ear so its cooling waters were grateful to his burning throat. He drank and

drank and drank again till he was full and still he said, not knowing when he might have another opportunity he quaffed a parting draught and returned to his pallet without his companion knowing anything of his delinquency. The doctor also calling on the following morning exclaimed, on seeing his patient in a foaming perspiration, "William, you are better—you will assuredly get well." "Fetch me a drop of water," said William next day to his deputed guardian just after the doctor had left him; "not a drop," was the response. William then told him what he had done the preceding night, at which his companion was surprised. William was however now hungry too, and persuaded Jack to cut him a good slice of ham and broil it with an egg or two. This game was carried on for some time, at last the doctor on one of his visits cried out in astonishment to William that he would soon be well. "May I have a little water?" humbly sued the patient one day to him; "not a drop," was still the answer. At last William explained the whole affair to his doctor, telling him plainly what he thought of him, and refusing to pay his account. So by taking simply cold water a man may be cured of a malignant fever, whereas where calomel has been administered the patient has died. We often hear the term *pleurisy* spoken of but few know what it really is. This disease is an inflammation of the membranous covering or lining of the lungs; its usual attendants are an acute pain in the side, obstructed

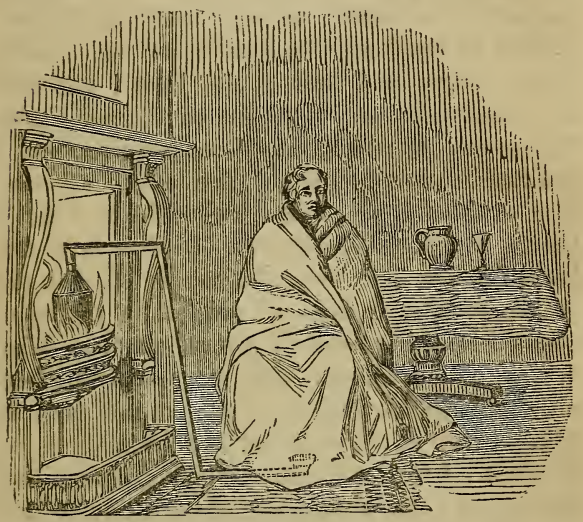
breathing, quick hard pulse and fever. This likewise arises from cold or sudden exposure to cold. Flushings of heat and alternate shiverings attend as the first symptoms, from which patients have recovered, but the improper medicines used would unquestionably seriously injure their constitutions; this I explained in a former lecture. The remedy resorted to in this case by the faculty as usual is bleeding. Byron, during his campaign as a soldier caught a fever and was attended by his physician who was bent upon bleeding him but which his patient as stoutly inveighed against. The doctor at last gained his point, Byron at the same time saying to him "I'm a murdered man." The consequence was as he anticipated, before the sun rose again he was a corpse. A lengthened detail is given of this circumstance in Mr. Moore's life of Lord Byron. Dr. Reed used to observe that the lancet committed more havoc than the lance, "I will not bleed," said he. It was said of Rush, a great advocate for bleeding, that during the prevalence of the yellow fever he bled everything he came to. Cobbett said of this latter physician that "by bleeding he cured all his patients for there was none left to tell," but for that observation a writ was granted against him for libel. Rush remained in the city of Philadelphia during that awful desolating scourge, and through the funds advanced by an excellent and benevolent individual, Stephen Gerard, was the means of doing great service in that city. Rush was however himself seized with

the fever and urged the usual course of depletion, and there was a consultation held on his case. "Be wise," said Chapman to him remonstratingly, "We will not bleed you." Rush, when he heard their determination, sent for his black servant and with his assistance opened a vein; the result was death in an hour after. Bloodletting has been practised for many centuries with great infatuation and is still regarded unfortunately as the must effectual means of subduing inflammation. In pleurisy, which I adverted to a little while since, an astonishing quantity has been drawn from the system, even from five to seven pounds within twenty-four hours. One professor is stated to have taken 200 ounces in three days. It is not an uncommon remark on drawing the blood from the vein to hear the observation how black the blood appears. I have endeavoured to explain to you that the blood proceeding first through the arteries in its downward course through the body, assumes a bright-red colour, but by the time it returns through the veins it has become dark-coloured and impure, having deposited its oxygen, it is received into the lungs in that state, where it again undergoes a purifying process, and is impregnated with its due portion of oxygen, &c. Supposing for instance I were to tie my finger with a piece of string, a short time only would elapse before a sharp pricking sensation would trouble me, and it would assume a black appearance. Now this would be an obstruction of the blood in its passage,

but does it, do you imagine, need to be taken away as though it were a superfluity? By no means! Take off the string and the effect will soon cease. The case holds good with respect to other parts of the human body. Were it necessary and it was found there was an excess there would have been a reserve of blood somewhere. Were the digestive organs capable of making more blood than is absolutely necessary for the purposes of life there would have been a cavity provided for that excess to which you could have had access, and thus supplied the frame after its having been operated on by the ridiculous practice of the faculty. But no! such a provision has been rendered totally unnecessary. I have never myself bled for thirty-five years and have proved what I have said to be true, encountering in my practice many very difficult cases, prescribing for 140 to 150 patients in a day, and if it would cure the sick I would recommend it as strongly as any of the faculty, but I deny altogether its necessity; nay, I rather denounce it as a most dangerous practice. By all means then let it alone, purify and cleanse it if you will, but no more. I mentioned that blood is created. The chyle may be called the essence of our food in a liquid state and is conveyed from the stomach through the chest by a duct which empties itself into one of the veins, immediately before the blood is transmitted through the lungs. In these organs the chyle is thoroughly mixed up with the circulation, and let it be distinctly understood that this

chyle is the only benefit, the only real food extracted from all the substances received into the stomach the remainder being entirely useless and excrementitious. From the chyle is produced the material of the bones, fleshy or muscular parts, the nervous cords, the hair, nails, enamel of the teeth, in short every different kind of material in the system. As to the quantity of blood in the body it is supposed to weigh about 30lbs. in an ordinary-sized person, and there are vessels so minute as only to admit the thinner portion of the blood. For instance the eyes, in inflammation, where the vessels have become much enlarged the red part of the blood or globules enters and shows itself by a bloodshot appearance. What is called the pulse is the flow of the blood through the arteries, the rate of pulsation in a person in the prime of life being from 65 to 75 beats in a minute; in childhood from 100 to 140; and in old age it is slower than that; but in fevers, inflammation, and other diseases of excitement the action of the heart increases to from 100 to 140 pulsations in a minute. This pulsation or muscular throbbing is more perceptible in the wrist. I mentioned in the last lecture that few were aware of the great good effected by a vapour-bath. The domestic bath is easily explained, the object in such an administration being to throw off from the system as much of the offending matter as possible, I would therefore in the first place give the patient a dose of Cayenne pepper and pennyroyal tea, let then a large pail or

bucket of hot water be placed upon the floor, the patient then, being stripped, should stand over it, with a large blanket thrown round his person up to the neck; let another person insert a hot brick



lengthwise, half way in the water, the steam will arise and diffuse itself over the frame and a perspiration ensues. The patient after having been under its influence a short time should be hurried into bed, not with the same blanket, but having been briskly rubbed over with a dry cloth let him be closely enveloped in a dry blanket and a hot brick wrapped in a cloth steeped in vinegar applied to his feet. The acid exhalation arising from the vinegar will be attended with the most beneficial

effect. Offending matter is thus thrown off while the principle of life is drawn into the system, and the patient is at the same time deriving strength. Let him then have a dose of lobelia sufficient to make him vomit. Of this useful article, prejudiced as some may be against its use, I have of late years, as I have stated before, imported more than 3,000lbs. My horse was ill, and I gave him a dose of lobelia, and the consequence was I had him in working order in two days. On another occasion I gave him a vapour bath, 2 oz. of lobelia, and cayenne, his fever as before in a few hours left him and I was able to ride him out the following day. I serve all animals in the same way, for lobelia is certainly a most excellent thing to cleanse the stomach. Now the practice I adopt with children in giving them a vapour bath is this:—I take off my coat and bare my arms to the shoulders; I then take the child in my arms and expose him to the influence of the bath, being able to tell by this means the temperature required for the child by the heat upon my own arms. A person at Hull attacked by a fever, sent for a doctor, the parish surgeon, who administered cooling powders as they usually do, debarring her of anything to eat and she was brought to death's door. Her sister came to me begging I would go and see her. I found her pulse beating so rapidly I could not count and I can count 150 per minute. Her breathing was hurried, eyes bloodshot, the husband was in the greatest distress anticipating her death

every moment. I saw at once hers was an imminent case; I went home and prepared a quantity of herbs, vervain (a diaphoretic or sweating herb), agrimony ivy centaury and Cayenne pepper; I applied hot bricks to her feet with vinegar cloths; the acid of vinegar counteracts the alkali; I put one of them to her side, giving plentifully of the medicine at night. Having to go that day to Barton-on-Humber to lecture, I promised on my return to call and see her, and I accordingly did so. I looked anxiously before I got to the house to see if the shutters were closed, for I had hardly expected but she would be dead. A kind neighbour had called to inquire if she could eat anything and had made her a dish of light pudding, composed of flour water and eggs. When I went into the house I found her ladling it into her mouth with evident relish assuring me she was so very hungry. I rejoiced I assure you, to see her so usefully employed and replied it was all right for that was the way people lived. Her tongue was before more like a piece of burnt leather than a portion of the human body, her head had been shaved, her breast and neck were covered with blisters, leeches had been applied to her temples and altogether you may imagine she was a miserable-looking object. I had to direct my attention, no easy task, to the remedying of the effects produced by the other doctor's treatment as well as to battle with the disease itself. Dr. F—— of Saville-street, Hull, called upon her a day after, and exclaimed "Mrs.

Kirby" (for that was her name) "you are getting better!" "I hope so" drily answered Mrs. K. Her husband, who was standing near her observed, "Dr. F—— I am a plain honest man, and it's best to tell you we have another doctor." "Indeed I expected to see the shutters up" said he, "who have you had?" "Dr. Coffin" replied the man. "Why he is a quack!" "There's one of his jobs then at any rate," said the husband pointing triumphantly to his wife. "Ah! but he does not belong to us, he has got no diploma, he does not belong to the College of Physicians." All this time the husband was significantly pointing to his wife. "Suppose" said the doctor, not willing to give the matter up, "an apprentice was to set up without finishing out his time and make tables, would you employ him?" "Well" replied the man "if he were to make a better table than myself he would be a clever fellow that's all." The doctor at last went out in high dudgeon. This gentleman returned in a day or two to Kirby's shop, but what think you was the object of his visit? I will tell you. Kirby was receiving from a society the pecuniary relief of eight shillings per week, and he went and stopped it. Poor fellow! he was indeed now in a fix. I went round however to a few friends and got the sum made up; not satisfied with that I mentioned Kirby's case to a benevolent gentleman belonging to the Society of Friends, who satisfied himself of the case and rendered considerable assistance to the man. Such conduct on the part

of the doctor as a matter of course rendered him notorious, and the injury recoiled upon his own head. A word or two on blisters. Spanish flies are generally used for making blistering plasters, and the object of course as the name imports is to raise a blister on the skin. You all know that a scald from hot water will of itself do this as it closes the pores of the skin, those natural outlets by which the insensible perspiration carries off the excretions of the body. Hot water expands these pores beyond their usual dimensions and the counter-influence of the air closes them suddenly and that perspiration which should have escaped raises the skin or in other words makes a blister. If blisters be necessary why not make use of boiling water? The hot water suddenly expands the pores and the counteracting influence of the air upon the skin is the occasion of blistering. To illustrate this more fully, I was taking tea some years ago at the house of a lady near Troy in America. Her sister while pouring out the tea, had a little child upon her lap, of five or six months old, who suddenly thrusting forth its hand turned the contents of a cup of tea down its arm. All was of course confusion, and I immediately jumping up from the table tore away the child's sleeve and tied round its arm a cloth dipped in cold water; this was repeated at intervals, the child's beginning to cry being the signal for its renewal. They stopped up during the night and the next morning I proceeded to examine it. They all crowded round and watched

with the greatest anxiety my pulling off first one cloth and then another, but were overwhelmed with gratitude when they found not the least appearance of the scald. The chief object my hearers will perceive is simply to keep out the external air and then no blister will arise. I remember on another occasion a lad once stepped by some mistake into boiling water; I immediately threw off his shoe and immersed the foot with the stocking still on in cold water, in six hours the foot was as well as the other. How often you hear nurses exclaim "how beautifully the blister draws!" there is no more drawing in the one case than in the other, the only difference is the flies take longer to produce that effect than hot water does, the former being attended with greater danger, for as Hooper says "externally applied they often produce strangury," and always a dangerous and painful sore.

LECTURE VII.

On Indigestion.

Man's rich with little were his judgments true,
Nature is frugal and her wants are few;
Those few wants answered bring sincere delights,
But fools create themselves new appetites.

Mr. Chairman, Ladies and Gentlemen,—

Indigestion is a subject of the greatest importance, inasmuch as it is more prevalent than many

are inclined to imagine for its existence often prevents the removal of other diseases. Before I proceed to that subject I must refer to one or two points omitted in my former lecture, and which I am reminded of in a note now given to me. It is not possible in giving lectures of this kind extemporarily to avoid repeating the same things a second or third time, though a truth will bear repetition; on the other hand an important point may possibly be omitted altogether. I am reminded of rheumatism. This arises generally from colds of long standing and the patient having been exposed to much variation of temperature. Not only so but in curing one disease the faculty have sometimes contrived to give the patient one or two others; like a man engaged to clear a building of vermin sometimes manages to leave a swarm behind; or like the man, related by Franklin, who to get rid of a weasel that destroyed his poultry burnt down his barn. How often do we find that the frequent administration of mercury has rendered the frame so susceptible of cold that the individual has thereby fallen an easy prey to rheumatism, and in thousands of instances it has proved a very difficult task to get rid of! The faculty have been known to treat this complaint in two different ways; one or the other we may naturally suppose must be wrong, and while coming to their right mind the individual is kept in pain and torturing suspense. Hooper says it is an affection of the extremities and external coverings of the body; the mem-

branes or coating of the muscles are characterised by pain stiffness swelling of the joints with or without fever, according to the violence of the disorder, but we declare rheumatism to be only another name for fever. Some doctors recommend Peruvian bark, some calomel, while others imagine that bleeding is the best mode. Sometimes rheumatism is acute chalky or chronic. Acute rheumatism is accompanied with great pain and swelling, which affects one or more joints, and often they appear very red and are tender to the touch. Towards night, arising most probably from the moisture of the atmosphere, the pain is more severe and very often the application of external heat will greatly aggravate it. One very remarkable feature of this kind of rheumatism is that it will frequently cease in one joint and attack another joint in a different locality at the same moment and with equal violence. Children are happily seldom affected with this complaint it being chiefly those from puberty till about forty. There is as a natural consequent of a cold deranged circulation; to remedy which the best course is to apply a vapour-bath. Chronic rheumatism in old people is far more difficult of removal. I remember a tale of a young student who submitted himself for examination before censors appointed for that purpose. The subject on which he was questioned happened to be rheumatism. To the various questions as to the modes to be adopted to get rid of this unwelcome visitor, he gave the usual course

of depletion physicking starving blistering, &c. Supposing however urged his examiners all these means were to fail, what then? I would then replied the student as a *dernier ressort* bring them before your honours to be examined, for sure enough the kind of sweating that they would get here would do them good if nothing else did. As far as regards the principle of sweating he was not far wrong for that unquestionably is the best plan to be pursued in so distressing a complaint as rheumatism. Now it is certain in this as well as indigestion you cannot cure the disease if you have a disordered stomach to deal with; therefore in the first place like an engineer see that your boiler be in good order. You must have no sandy foundation, and the draught should be clear, for to use an engineering figure you cannot drive a locomotive engine unless the boiler be perfectly free from all incrustation. There should be perfect accordance in all the parts of a machine before it can work harmoniously, and if an engineer were careless on a matter of such importance it would be the interest and duty of the employer to discharge him. If we may judge by the success of our own principles it will not be long before this is the case with the medical fraternity for their services bid fair to be dispensed with altogether. I have been also reminded that I have to give a remedy for burns in cases where the skin has come off. The chief object is to keep off all external friction and guard it from the air. The healing salves of the present day are mostly a mere

farce for the action is on the part of the system. A salve made in the following manner will be found as good as any that can be used: bees-wax 2 oz., Burgundy pitch ½ lb., hog's lard ¼ lb., should be simmered over the fire till the whole are well mixed together. I would caution you against the use of soap so often resorted to as that rather irritates than heals. The plaster made as referred to is as soft and bland a thing as can be applied. When sores and ulcers break out over the body (which is an annoyance some people are much subject to), it is a sign the system is out of order, and were people more careful as to the state of their stomachs there would be an end to the thriving trade in salves unctious preparations &c., that fill so considerable a space in our newspapers. Scrofula scurvy sore legs &c., have frequently their origin in the vitiated state of the blood. A question is asked about Morison's pills. It is not always pleasant to single out individual preparations but I have heard that the profits arising from the sale of those pills has been little less than fifty thousand pounds per annum. They are recommended for indigestion excesses of various kinds and a vast variety of ailments. In fact it may be considered a proof of the little confidence placed in the medical profession that such nostrums should ever have sprung into existence and so extensive a sale effected. The time is however happily going by for such nostrums for we seldom now hear of persons taking them; indeed such medicines are ill adapted to the frame of man,

We have on the platform at this time a specimen of the manner in which our system should be carried out. Here sits an old woman who has been cured of quinsy a disease of no little danger, and no sooner cured herself than she extends her knowledge to a poor unfortunate one similarly affected and succeeds in restoring her likewise to health. A plan like this properly carried out is calculated to be of essential service in lessening affliction amongst our fellow creatures. There is one peculiar circumstance with regard to our system and that is, persons once accustomed to its practice are so enamoured of its simplicity and perfect adaptation to the wants of the animal economy that they have become warm adherents fully persuaded of its real value. When any particular branch of science is found to be an improvement upon past experience it is our bounden duty to avail ourselves of it. As I have stated before, health depends in a great degree upon the state of the stomach, and if there be physical derangement there you may rest assured illness will ensue. Mentally and physically the patient suffers and little happiness can be enjoyed till the evil is removed. By a mistaken opinion of ignorant men diseases are attributed to wrong causes and it will often be found that indigestion gives rise to much error. Here lies the necessity of knowing thoroughly the cause of disease before it can be successfully grappled with. I have endeavoured to show you the impropriety of treating effects instead of dealing with the causes themselves.

I have known individuals labour under indigestion for more than twenty years and not know what it was to have a piece of light food pass into the stomach without suffering afterwards considerable pain. I can myself as every one else ought digest any common food. Dr. Andrews thus describes digestion as "mastication or the mingling of the food with the saliva juice, the detention of the food in the stomach falling in with the stomach or gastric juice, thus preparing it for assimilation making it fit to pass the pyloric region (or outlet of the stomach) in the form of chyme." The next stage is the separation of the nutritious particles from that which is not required for the sustenance of the body. The same celebrated author observes regarding the present subject that "without doubt it is the most frequent of all diseases," and declares further that "physicians have made for a length of time this disease the subject of inquiry, yet it remains involved in much obscurity, its pathology is little understood, the method of its treatment imperfectly known, and the greatest difference of opinion exists regarding the extent to which it influences the production of other diseases." Cyclopædia of Domestic Medicine p. 527. It is essentially necessary that the substance taken into the stomach should be good, for upon that depends the natnre of the chyle which contains also a quantity of iron that is transmitted to the blood. The question has been asked, why condemn remedies containing what you allow to be an essential property to the system?

To this question I would answer that God has ordained that food should contain a sufficient quantity of iron to answer every purpose required. As I have before stated there are many that do not take in the form of medicine a particle of iron. I allude to the North-American Indians. The iron thus extracted from the food is the carrier of oxygen to the blood, impregnated with air. I gave you an extract from Dr. Andrews, on digestion, I will give you that of Dr. Thomson of Bedford Square a living witness. "I regret," he says, "to be obliged to infer that the common received notions of digestion are scarcely admissible." A pretty observation truly to proceed from such a quarter and not likely to give the public a very exalted idea of the medical profession! There is a common saying that "one ounce of preventive is better than a pound of cure," I have therefore endeavoured to explain the nature of the disease and unlike the practice of quacks I shall therefore strip my information of all mystery and unintelligible jargon and plainly tell you all I know myself. Dr. Brand, another of the medical profession in fact who was a professor or manufacturer of doctors at Apothecaries' Hall, follows in the wake, and declares "Our knowledge of digestion is extremely imperfect" and again in another place, "on this subject our opinion is limited and imperfect." We have many long-established errors to deal with and many call out for very gradual changes. In every case I am no advocate for such gradual changes. Were a person's fingers in the fire would

you pull them out gradually? In adverting to some of the causes of indigestion I shall come into contact with long-established and bad practices. I would instance in the first place that injudicious one of overloading the stomach especially by late suppers. While sleeping the organs are still at work though the body remains inactive, the circulation continues through the system, and the stomach carries forward its duties of digestion; but if overloaded what can be expected but uneasiness and sometimes frightful dreams? You have given to the stomach too much labour and the frame itself being inactive there is not power in the organs to perform their accustomed functions. Hence how often we hear of nightmare! The circulation and respiration being slower, the animal heat is also less, in fact more clothing is required during sleep on that account than in the daytime. Again there is a very common yet true adage that one hour before midnight is worth two or three afterwards; how foolish and ridiculous then must be the injurious practice of turning (as at the various midnight assemblies), night into day, encountering thereby the damp moisture so pernicious to all especially those of a delicate constitution! Avoid, if you wish for refreshing sleep all narcotics. If you are in health you should require no such sedative and depressing influences, and if not in health remove the cause and the effect will cease. I would likewise recommend abstinence from all wines spirits opium and tobacco. I am an enemy to them all, I denounce them as not only unnecessary but decidedly

injurious. Long sleeping, on account of its weakening tendency is also very prejudicial, and on a general average the period should not exceed eight hours; this is surely enough to recruit exhausted nature, and a person transgressing this limit must feel lassitude and enervation as the result of such indulgence. Temperance both in food and drink with moderate exercise, are absolutely necessary to sweet and refreshing sleep. Strong tea or coffee are improper immediately on retiring to rest. How often you hear of the poor artizan after a week of fatigue and wearying labour, receiving his wages late perhaps on the Saturday night, proceed to market for his stock of provisions! He fancies it very hard if after receiving his hard-earned pittance he cannot indulge himself in a good beef-steak for his supper with the addition of onions and perhaps a quart of malt liquor. Upon this perhaps double quantity of meat than should have been eaten in the middle of the day he retires to rest. The next day being the Sabbath and a leisure day he fancies an extra hour or two's rest and with his wife rises to a later breakfast, of which they partake without exercise, and it may be in similar proportion to their previous night's meal. Before much time has elapsed we find them sitting down to their dinner-table groaning with an extra abundance and a greater variety than usual as a "treat," constituting in fact a sumptuous meal, and a proportionate quantity of malt liquor is unfortunately considered necessary to float this abundant mass deposited in

the stomach. Of course tea cannot be dispensed with and even if the husband should perchance be indifferent to the meal it is more than probable the wife will urge a cup of comforting tea. By-and-by supper is brought on the table, and as Sunday only occurs one day in seven, and he has worked hard all the week he thinks he ought to enjoy himself at least on that day, therefore his concluding meal is composed of the remainder of the meat with the usual allowance as a matter of course of beer; so that in fact perhaps three times the quantity of food is taken during this leisure day without his usual exercise, probably not even a walk to aid its digestion. Where's the wonder then that the poor man should rise on the following morning with an oppressed stomach, perfectly wretched, and not unlikely incapable of proceeding to his accustomed labour. This is not all; though five meals be an imprudent course (I am now supposing he indulges also in a luncheon), there is still another sin he has been guilty of. There are too many artizans fancy that they cannot do without a little wee drop of the "cratur" and a portion of spirits is accordingly poured upon the mass with a mistaken view of aiding in its digestion. Let a man (as I think I have elsewhere observed) take a piece of beef and immerse it in spirits and inspect it a score years afterwards he will then be convinced of his error in imagining that spirits can aid digestion. As I have before explained the stomach contains a gastric juice that has the power of assimilation and decom-

position. Spirits will not favour this process, nor will malt liquors create a juice like that provided in the ordinary course of nature for action upon food One author in writing on physiology remarks that investigation has failed in informing us of the nature of this principle, is it not highly necessary therefore that we should not interfere with it by impregnation with a foreign liquor? The stomach is furnished with nerves from each nervous department and is very sensitive either to stimulating substances or liquids and any disturbance from mental causes. The healthy state of the stomach and the tranquillity of the mind are dependant upon each other. I have seen lads proceeding to their factories in Manchester, and other manufacturing towns, early in the morning, with their short pipes in their mouths, pale and wan as if their labour and badly ventilated rooms in which it is performed was not of itself sufficient to waste the constitution without such filthy enervating practices as smoking. No wonder our youths are lean lanky and demoralised by such habits. An author (Levison) speaking upon the subject of smoking remarks "Extreme smokers often suffer greatly after the habit has been indulged in immoderately as regards the teeth, which are found to be denuded of their fangs." Tobacco is ranked by all writers among the narcotic poisons and is very injurious to the digestive organs. The teeth are sympathetically affected under every form of dyspepsia, whenever, in consequence of such disturbed functions,

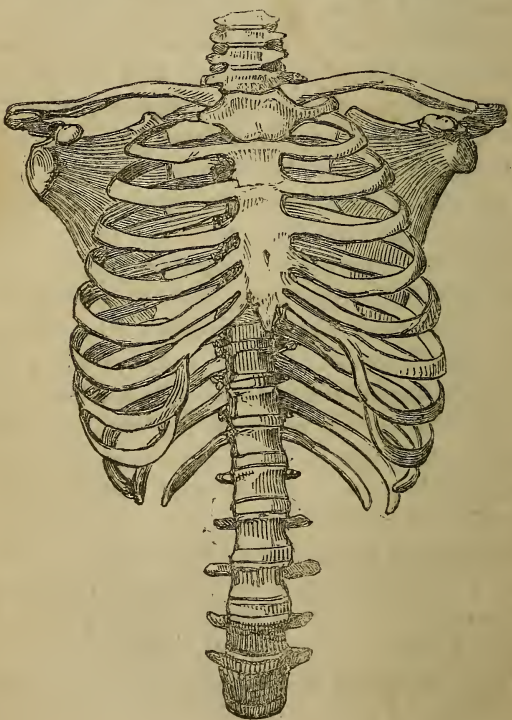
there is an excess of acidity. The white smoke given out contains an essential oil which when inhaled is the cause of morbid conditions of the stomach and the auxiliary agents of the vegetative functions. The fangs have been found porous and having lost their normal vitality the saliva becomes acidified thus the teeth are acted upon the more potently. It destroys the sensibility of the stomach by weakening the digestive powers, and generally enfeebling the system. One word as to snuff-taking, which to say the least of it is a useless and absurd custom as well as highly injurious to digestion. Dr. Willich says "it is prejudicial and has a direct tendency to emaciation; by its continued use it vitiates the organs of smelling, weakens the sight and hearing, renders breathing difficult, depraves the palate, falls into the stomach and injures digestion." I was myself at one time addicted to it but have thrown it aside convinced of its baneful and pernicious effects. I would strongly advise my unmarried female friends to have nothing to do with a lover addicted to so filthy a habit. Indigestion frequently arises from sedentary occupations which have a debilitating effect upon the muscular and nervous energies. By sitting in a bent position the sternum or chest-bone is pressed against a desk or table, and frequently causes headache giddiness dyspepsia diarrhœa &c., the organs are thus much compressed. Early exercise is indispensable as well as regularity with respect to food, its nature quantity &c. (See Guide to

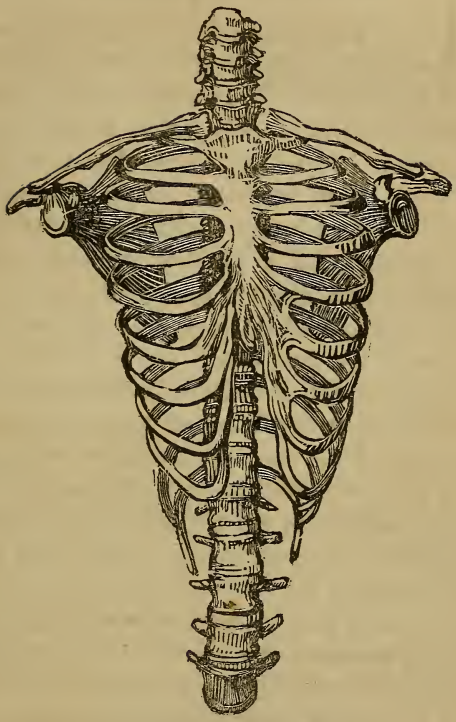
Health, 20th edition, Diet Table, page 193.) Gaiety it is well known will cause head-ache lassitude and other evils; and I would also caution against too much sleep as well as too little as the former will engender disease and enervate as much as the other. The late Archbishop of Cambray was accustomed to observe that it was "a shame for man to have so many diseases." A word to the female portion of my audience. I have brought one or two skeletons to explain to you the injury arising from the ridiculous practice of tight-lacing, for ladies seem unwilling to appear in the form in which an all-wise Creator has made them. Spurious and strange notions have sprung up in our day and instead of the handsome and noble structure of a Venus, the perfection of beauty and the admired of all ages and lands, with her graceful plump well moulded and proportioned limbs, fashion forsooth must invade the territories of common sense and interfering substitute a wasp-like chest. Alas! modern fashion how hast thou degenerated and what cause thou dost give to mourn thy despotic sway! Sickly women have become exceedingly numerous from this practice, some of them scarcely enjoying health for a week at a time. As mothers they have been unhealthy and have produced unhealthy offspring, often with the forfeit of their lives. This is generally allowed by practical men. A wasp-like waist was never designed by nature, or the God of nature would have framed these bodies differently. When we see such a form we naturally expect such

to be the case. Rosy cheeks and sparkling eyes owe their existence sometimes to a different state of things than a healthy constitution. There is my friends such a thing as determination of blood to the head; the chest and stomach being compressed will cause this, therefore delude not yourselves and fondly imagine all is right with you. Oh! vanity how often hast thou caused old age to grieve over the shameful practice of putting stays upon young girls of the tender age of six or seven years by which they frequently grow crooked, spine gradually swerving from the right line, and the chest to contract! Why not rely upon the power of the muscles of the back, abdomen, and chest, instead of such a support as stays? A young woman aged twenty, once died from apoplexy, having eaten a hearty dinner being tight laced her stomach's action was paralysed and the blood was driven to the brain. The busk eventually injures the breast-bone, and often brings on a disease of that bone. One author on the subject thus writes: "The height and depth, the length and breadth of all folly and madness is the tight lacing of females. The baby foot of the Chinese woman is sound common sense, yes, consummate wisdom compared with this frightful practice which has destroyed its tens of thousands, and the work of destruction is still going on. Ribs are broken lungs are consumed and all the host of diseases induced by this wicked practice follow, and though physicians and friends have lifted the voice of warning, yet the suicidal work proceeds. Their

wasp-like waists flutter in the sunbeams for a few days, for some silly corsetted cigar-smoking dandy to admire, and then the curtain drops. The lungs are the very citadel of life, and on their freedom of action and integrity, the full development of the functions of every being depends." How absurd then in early life to incapacitate them for the performance of their assigned duties, preventing their expansion, to shut out the breath of life and injure the development and symmetry of the whole frame! It is certainly a most absurd practice and I always look upon a figure so distorted with feelings near allied to pity and contempt. Fashion rules that like a despot and those that have the guidance of these affairs ought to be compelled to suffer a part of the misery they entail upon others. Right glad am I to state that from my exposure at various times of this improper and dangerous practice, many have been induced to throw aside their stay-bones and dress more like the creatures God designed they should appear. I once at Leeds had a visit from a young lady of fashion. She had been driven to the end of the street in her carriage, hardly proof against the prejudice then existing against me, and she seemed even fatigued with the trifling exertion of walking to my door. I listened as patiently as a Job to her numerous train of ills, at last I apparently as if by accident dropped my pocket handkerchief on the floor and politely requested she would do me the honour of picking it up. Except by actually showing you the manner in which she performed this difficult task it were

impossible to explain the ridiculous figure she cut on that occasion for it would have puzzled the posture of a dancing master himself. Not satisfied with that experiment I desired this poor deluded creature to extend her arms and throw them behind her, in this she signally failed and after one or two similar manœuvres I succeeded in satisfying her of the cause of her ailments. By an inspection of the two skeletons now introduced to





COMPRESSED SKELETON.

your notice you will perceive a manifest difference in their appearance thus proving my assertion correct that fashion has transversed the order of the breast-bones. In this long spinal column (to which are attached the twenty-four ribs), there are seven cervical, twelve dorsal, and five lumbar vertebræ. Each vertebra or joint has various projections and depressions to ensure a firm union with

each other. The spinal column is curved in one or two places chiefly towards the middle part of the back. The second of the vertebræ sends upwards a projecting pinion or tooth which is received into a depression in the one above, thus forming the pivot upon which the head turns. Through the column proceeds a cavity for the reception of the spinal marrow, and a ligament proceeds through the entire length scarcely thicker than a piece of paper, but if injured death may be expected from the pressure on that spinal marrow. The spine communicates with a hollow-like basin called the pelvis of great strength having sockets for the two upper bones of the leg. At the top of the breast-bone in front, stretched on each side and joined to the sternum-bone, is a long bone in an arch-like form similar to an ancient key. At the back of the frame is placed a flat bone rather thin and retained in its position by muscles only, these uniting it to the head, ribs, vertebræ, arm-bone, &c. As I remarked before the ribs naturally are narrow at the top and wide at the bottom, thus wonderfully arranged to allow of free expansion of the respiratory organs, but in this figure setting defiance to the wise arrangement of Providence there is a manifest interference with nature's laws, and the vital organs being jammed fettered and cramped by fashion's votary and slave, are made liable to contract any ailment that may seize upon its victim who becomes an easy prey on thus violating the laws of nature. Females are not the only deluded victims of fashion. If

there be one more contemptible being on God's earth it must surely be a military fop or tight-laced dandy, the stomach lately possessed by one of which class of mortals I now hold in my hand. The original form contrasted with it will tell its own tale and on another occasion be adverted to. How often have ladies from tight-lacing been found dead in their rooms! and have not the columns of the papers given various accounts of awful deaths from this ridiculous practice? One female at a wedding dropped down dead at her husband's side. A young lady entering the porch of a church in Halifax in a wedding party dropped dead at the feet of her companion. The drinking of vinegar for the purpose of preventing too great corpulency and giving a pale delicate appearance has led to irreparable mischief. Was ever so preposterous a practice known? I shall conclude by suggesting that young men considering their lovers are to be the mothers of the rising generation should make a stipulation that they at once abolish all such injurious practices.

LECTURE VIII.

On Indigestion—continued—Teething, and Worms.

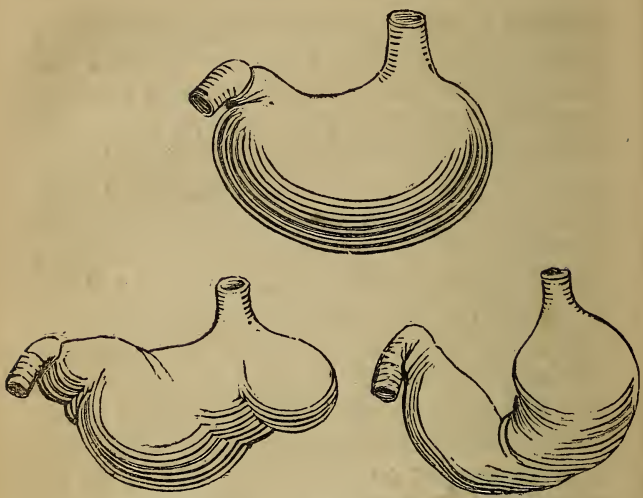
Mr. Chairman, Ladies and Gentlemen,—

Having explained the real cause of the death lately occurring at Northampton, I have a friend of mine from Sheffield who will corroborate my state-

ments given in previous lectures about lobelia, having been resuscitated and brought from death's door he can therefore testify of its good effects. In 1847 said Mr. S—— "I was attacked when in London with influenza. I applied to a medical man who gave me effervescing drinks, &c., and after remaining in London some time I returned home and was seized with inflammation of the lungs. I sent for a surgeon who administered acids, mercury, and various other ingredients which brought me into such a state that I could not lay down, I therefore applied for further advice and though the faculty confessed they knew well what was the matter with me, still they could do nothing for me, and accordingly I was left. I had been recommended to Dr. Coffin, but I disliked the man! the very name was enough for me and I determined to have nothing to do with him. An old friend of mine, Mr. Walker (previously alluded to) whom Dr. C. had cured and who I was aware had been compelled to walk on crutches, commiserated my case and often endeavoured to break down the wall of prejudice that I had raised against that benefactor of the human race. My friend succeeded, I saw Dr. C. and asked him the plain question, 'Can you cure me?' Whatever his own confidence might be yet he only diffidently replied 'I'll do you no harm, but you must have lobelia for your bleeding of the lungs and it's the only thing that can cure you.' I refused from a feeling of horror of lobelia and I continued in my impenitent course till the following

Saturday night, when necessity disdaining all laws my stubborn will gave way being then in such a state that I told the doctor I would rather die than live. A dose was accordingly given, and for two months lobelia and cayenne were articles I could not do without, for I found them the most serviceable I could take and the only substances that did me any good. In March last coming from Aberdeen I caught a severe cold which resulted in an illness. I had been in the habit of taking lobelia with me as a constant companion, and at eleven o'clock one morning, I ordered a basin of gruel taking at the same time a dose of lobelia; its effects were just what I desired and as I thought it hardly prudent so soon after to take my dinner I delayed eating any more till tea time. I was then I promise you hungry and did ample justice to the turkey brought upon the table. Now, whenever anything is wrong with me I invariably open the 'Guide to Health' and soon find what I require to restore me. One person that I knew afflicted with paralysis was completely restored by the means there proposed and as to myself I do not intend to have any of the faculty again."

I promised to show you various stomachs and now fulfil that promise proving the cramped state and improper condition into which they may be brought by tight lacing. I spoke of a skeleton belonging to a captain I have here his stomach, and if certain shameful practices are indulged in you must not wonder at certain evil consequences resulting therefrom. Nothing illustrates like contrasts,



NATURAL AND CRAMPED STOMACHS.

and I will show you a natural-shaped stomach by the side of two or three disfigured ones and direct you to look at the one picture and then on the other, thus giving you an opportunity of judging for yourselves. One person had seven children and they all died at birth from this inhuman and dangerous practice. We hear of convictions for manslaughter but it is equally chargeable upon the heads of mothers who destroy their offspring by this means. I endeavoured to explain the functions of the stomach in my last lecture I will cursorily run through the various particulars having one in my hand. At the left-hand side is connected a hollow tube called the œsophagus which reaches from

the back or rather the bottom part of the mouth, and in describing the formation of this important tube I trust to convince you of the impropriety of too quickly swallowing your food. I told you that there was in this œsophagus a mucous membranous lining from which a mucus flows for keeping that organ in a state of lubrication or moisture. Though there is such a principle as gravitation do not imagine that its law acts here. What would become of the horse and other animals eating grass if there was no other admirable contrivance? For the purpose of relaxation and contraction the œsophagus is provided with muscular fibres disposed in such a fashion that those two purposes I mentioned can be answered. On the introduction of the food into this tube, by the œsophagus relaxing and opening to receive it, the contraction then takes place which forces the food down while the part underneath that portion is likewise relaxing in a similar manner; thus the food proceeds by a regular process to the stomach. This all takes place rapidly, yet it is too hard not to let the œsophagus have sufficient time to recover its position after each separate mouthful is taken. The entrance to the stomach is called the cardia and is a little larger than the other outlet named the pylorus. The stomach is of the same nature exactly as the tube I have described, having the same membranes, peritoneum and internal mucus. The latter is called villous from the vast quantity of minute bodies with which its surface is covered called villi, the mucous membrane

receives from this a peculiar velvety appearance. As soon as the food arrives at the stomach a slight agitation takes place through the muscular fibres and the food thus obtains a portion of the juice with which the stomach is provided. The little sentinel pylorus or valve, then lets out that portion of food that has been properly prepared into chyme and retains the undigested mass till ready for a similar exit. On the passage of the food into the duodenum (which may be compared to a second stomach), a material change takes place. So far the food is but chyme it now is formed into chyle by the action of gall or bile, and is carried up the system as before described as blood into the subclavian veins and thence into the lungs, part of the blood flowing to repair the gradual waste constantly going on in the system, while the rest is carried by the blood through the arteries over the body. Every part of the frame is provided with them and you are to understand that whatever is introduced to derange this nice and delicate arrangement causes obstruction and disease ensues. Each ventricle of the heart holds five ounces of blood and in a healthy person there should be seventy-five to eighty pulsations in a minute, there must then flow through that organ twenty-five pounds of the crimson fluid through each ventricle in a minute. In the body of a person who had died of excessive palpitation of the heart brought on by hard drinking in hot weather, ten inches of the aorta nearest the heart was found distended three times its natural

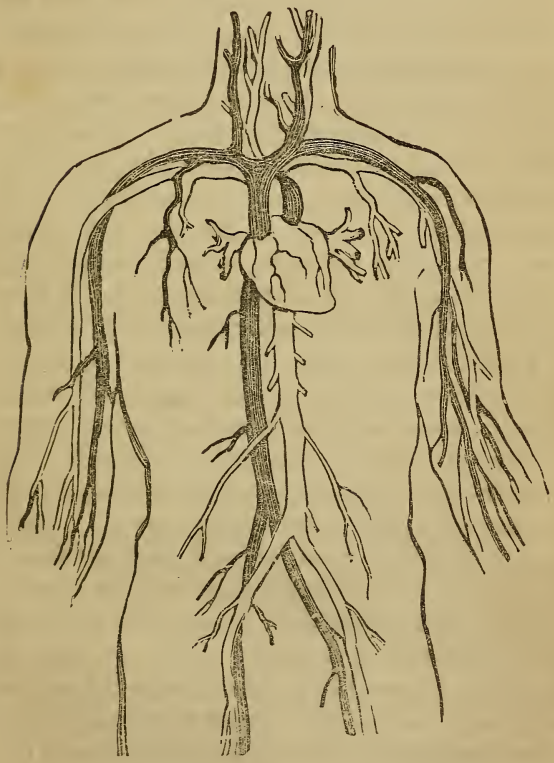
diameter without any symptom of the disorder when living. Who can tell the amount of injury likely to accrue from so dangerous a practice? I have before entered my protest against every kind of malt or alcoholic liquid, and in doing so I may be considered something like the Ishmaelite of Sacred Writ, for my voice is against a multitude that drive a roaring trade to the ruin of many a poor deluded mortal, but in doing so I fearlessly contend for that which I conceive to be the truth. O! that small drop of beer so earnestly clamoured for when a mother is nursing is attended with much evil. The human stomach may be compared to a corn-mill, and you are well aware that to obtain good flour it is necessary in the first instance the corn be good. The machine for grinding corn is curiously made, composed of two stones, the upper one is flat, with various grooves or ridges, the other stone is cut with convex ridges, thus fitting tightly the one in the other. The rotatory motion throws the corn to the surface and when properly bruised is carried to the boating machine which is an octagon. When a miller requires a hand he naturally desires to have a character with him. Satisfied on that head the man is directed to commence his labour and all things go on well so long as the master's eye is upon him; but supposing that as soon as his back is turned he begins to throw in between the stones pieces of steel which tearing off portions from them, they are thus conveyed into the mass. Can such a compound make good bread? Those pieces are

no more injurious to the stones than the shameful drugs thrown in to your malt liquors are to the stomach for there is a great amount of adulteration in them. I remember well being amused by a man once saying he had got two hogsheads of beer in his pocket and when an explanation was sought for, as it was very evident that his pockets were not large enough if all put together to contain such a quantity, he replied he had opium and other articles for drugging that liquor, and when reasoned with for such a course he observed that victuallers were obliged to drug their liquors pretty well, else if they were not made heady they would not be thought strong. So you will perceive if there were nutriment in malt the drugs would nullify every particle of benefit that could arise therefrom. Dr. Carpenter in his prize essay observes "London coal-heavers, porters, and draymen will drink as much as two gallons of porter daily, and often spirits besides, and they usually have the appearance of great bodily vigour, so long at least as their labour is carried on in the open air, but their constitutions break down early and when they sustain an inflammatory attack or any local injury it is exceedingly apt to run on to a fatal termination; in consequence it is evident of the deficient plasticity of the blood and low assimilative power of the solids, as well as a general depression of the whole vital energy resulting from habitual over-excitement. Fox-hunting squires who spend their evenings over the bottle are notoriously bad subjects for medical or surgical

treatment, owing to the imperfect condition of their nutritive functions." And yet this is the stuff that is furnished to hospitals to cure disease. They may act as a stimulant but it is only the stimulus of alcohol. Some say that it is necessary, but I assert confidently that stimulants of such a nature are not required at all, and it is only from the frequent use of such liquor like the Turk with his opium, that you fancy you cannot do without it. Dr. Lettsom ascribes health and wealth to water and all diseases and crimes to the use of spirits, I would therefore recommend water in its stead. Dr. Buchan ascribes indigestion to the free use of malt liquors and eating late suppers. It has been a question much discussed whether man be more a flesh-feeding or herb-eating animal; experience shows he is omnivorous or equally adapted to both, though the structure of his jaws and teeth say some vegetarians, together with his intestines favour the idea that a farinaceous diet is the most suitable. Be all this as it may it forms a conclusive argument for simple and nourishing diet, for invariably it has been found such persons have been more free from disease and enjoyed better health. It has often been denied that ale contains alcohol, merely because it has not been actually thrown in by some hand, but though it is true it does not reside in the malt itself which is obtained from barley, nor in the barley either, still it is produced by chemical changes. Barley first sprouts by the malting process, then the fermentation taking place

changes the sugar of the malt into the alcohol of the ale. Tobacco undergoes a similar change and has led prejudiced persons to confound that article with lobelia. I think I have fully explained and satisfied you that if food is required to be decomposed in the stomach for the sustenance of man, spirits employed in museums to keep curiosities of various kinds perfect and prevent them from putrefying cannot be the article to be introduced into the human frame. I remember when I was an apprentice having to assist my master on the occasion of a labourer who had fallen from a scaffold and cut open his skull so as actually to cause the brain to protrude therefrom. In clearing away the matter which had collected in consequence, the sponge smelt so offensively of rum as to be perfectly sickening. In order to convince you that London porter is positively injurious I will give you an extract I perceived the other day regarding its adulteration. It is mixed with water, salt, sugar, or treacle and what is generally called black extract (a preparation of *cocculus indicus)*—an intoxicating drug, imported at a nominal duty. An author named Childe speaking of this drug in his treatise on brewing, declares it an "injurious article used by poachers and by many to adulterate wine and beer—thus with grains of Paradise and nux vomica." Another author (Morrice) gives three pounds of *cocculus indicus* as the proportion to be used for every ten quarters of malt, and adds, "it gives an inebriating quality which passes for

strength of liquor." It is disgusting to think that men can recommend such a system of slow-poisoning. I have brought a skeleton to show you the distribution of arteries and veins through the human body, and the cut here exhibited will give



CIRCULATORY SYSTEM.

some idea of the circulation. The heart, situated in the centre of the thorax, between the two lungs has been represented as a root, the arteries trees, of which the aorta is the principal trunk, commencing at the left ventricle of the heart, this tube conveying the blood through the body. The other trunk or tube arises out of the right side of the heart and communicates with the lungs by two branches. The arteries may be traced by the bright colour of the fluid, being in its course of a purer nature than after its return from the extremities, when it proceeds through the veins to the right side of the heart and to the lungs, as before mentioned. "It is ascertained," says Dr. S. Smith, "that various gases or airs have a striking effect in changing the venous blood, thus by introducing the clot of blood into a vessel of air it speedily passes from a purple to a scarlet colour; and by analysing it will be found to have embodied a large quantity of oxygen from the atmosphere, but if exposed to pure oxygen the change is rapid; but on the other hand if to impure air containing no oxygen it is not changed at all. Carbonic acid gives a dark-purple colour." Liebig is of opinion that "carbonic acid gas is not formed in the lungs but is brought there with the blood by means of globules of iron always present in the blood but nowhere else found in the system. In the lungs these particles of iron resign the carbonic acid taken up in the course of circulation and absorb oxygen from the air, by which means it is that its colour is changed and rendered fit to be

sent through the system." He says that "during the passage of the venous blood through the lungs the globules change their colour and with this change of colour oxygen is absorbed from the atmosphere. The red globules contain a compound of iron, and no other constituent of the body contains iron." I have previously stated that iron is contained in the food we eat, and that too in sufficient quantity for every purpose required. By the twisting and turning of the body one would naturally expect that the blood would turn back; but no, there is a beautiful provision in the heart to prevent this flowing back, for between the left auricle and ventricle there are valves contrived, and when the ventricle contracts to send the blood through the aorta, they close accurately so as to prevent a reflowing into the auricle. The same appears between the right auricle and ventricle and also at the mouth, or commencement of the aorta, pulmonary arteries, and the veins which communicate with the right auricle. These valves are most beautifully arranged and composed of three flaps. In the lungs of a child before birth they do not act, and therefore it cannot breathe; but there will be found a small hole or communication between the right and left auricles, by which the blood of the veins flows directly through the arteries and avoids the lungs altogether. This hole closes when the child is born and begins to respire. The aorta forms a kind of arch and from that arise the numerous branches to supply the brain and

face and arteries to the arms and chest. In the downward course the branches extend to the stomach and other viscera—their ramifications are so numerous and minute that they show themselves in every portion of the body. A writer in speaking of the waste in the vegetable kingdom and the human frame, calculates that a sun-flower will throw off thirty ounces of matter in a day and that the human body by means of the skin, lungs, liver, and kidneys, loses five or six pounds a day, and were the body not to be supplied at stated intervals by nutritious food death would soon ensue. Dr. Currie gives the case of a man who was not able to swallow, and who at the close of the month was lighter by one hundred pounds. Supposing a man then to be ordered under the starving regimen of the faculty to abstain for a few days from food and Dr. Forbes (as he has been known to do), were to obtain from his patient eighty-four ounces of blood at one time, or Dr. Currie two hundred and fifty ounces in three or four days, where is he likely soon to be but in his grave? I come now to the subject of teething and I would observe on commencing it hat one leaf out of the book of nature will go far to confute many of the ridiculous notions of the present day. On this point likewise we differ very materially from the medical faculty, for it is not dentition that causes sickness, and I will endeavour to prove that though sickness may occur at that time yet it is attributable to other causes. Many and many a time have the doctors shielded themselves

and cloaked their ignorance of the ailments of a child by yielding to a mother's fancy that the child was teething. I have as an accoucheur attended six or seven hundred cases but never knew a child yet sick from cutting teeth. In the 200th page of the 20th edition of my "Guide" you will find that I asked the question from an Indian mother and I shall not soon forget the question she put to me in return, nor the peculiarly sarcastic and expressive manner in which she uttered it, "Are the calves sick?" said she. Now that I have pointedly denied sickness as resulting from this cause allow me at once to explain myself. It will generally be allowed that civilised society have become luxurious, and are enervated by their habits and customs, also that the robust and healthy children of country labourers suffer far less than those born in the lap of luxury. It has become too much the fashion of our day to resign children to the care of young and thoughtless nurses who have often been found culpably negligent of the charge entrusted to their care, the consequence has been many cruel instances have occurred through bad nursing and the object of such neglect when arrived at years of maturity, has had to regret that existence was ever given to him, his life having thus been made a burden to him instead of a blessing. A few cases of this nature I have prepared to bring before your notice. Nature has provided a proper fountain for the sustenance of the child but the adaptation of food to the stomach of that child after a given period by injudicious

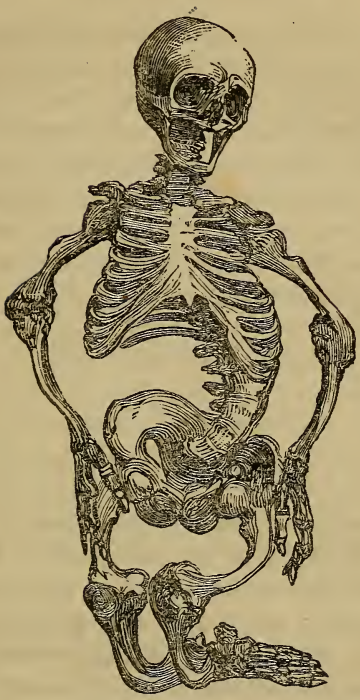
mothers and nurses has not been by any means the proper substitute after the use of such a simple diet as milk, so wonderfully adapted to its frame. Would you give a patient labouring under some dire disease, having been bled, blistered, and reduced to a mere skeleton by a medical man, and after being accustomed to nothing but the most simple farinaceous diet; Would you I say give such an one a tough beef-steak or a mutton-chop? As well might you expect to find health in a child when it has its stomach gorged with potatoes, bread, soups, and viands from your own table and only adapted to adult stomachs. I once knew a child transferred to the tender mercies of a young girl, eating cherries, and the stones were being swallowed with equal avidity as the fruit itself, and you wonder indeed that your child is ill. Can such articles digest? You consign a tender infant formed of the most complicated and exquisite tender machinery to a girl of inexperienced and thoughtless habits, whereas were you asked to lend the same girl your watch you would at once refuse, asserting without doubt that she was incapable of taking care of it. Pray which is the most valuable? Which is capable of being the soonest deranged? The child thus receiving food so uncongenial to its stomach, its system must become disordered. I have even known wine and beer given, frequently rendering it a fit subject for every ailment that might assail it. It is from such causes sickness ensues and not from teething, any more than from

the circumstance of the hair or nails growing, for you might just as reasonably expect illness from the one as the other. Cleanse the stomach you that have been guilty of such practices, by proper medicines, properly and judiciously applied, and let your child have simple bread and milk as the nearest allied to its late maternal diet, leaving nature to perform the rest, fully assured that she is a better physician than the doctor's lancet. Remain no longer in ignorance on this important matter nor suffer your offspring to be unnecessarily tortured by the inhuman device of lancing gums. Let nature perform its own work and suffer yourself to attend only to those duties she demands from you, thus working in joint accordance with her efforts for your child's welfare. A case occurred at Birmingham where a legalised doctor unquestionably sacrificed the life of a poor infant by the adoption of this barbarous practice of lancing. That legalised and therefore privileged mortal had managed to cut one of the arteries of the jaw from which there had been a copious flow of blood, and after this doctor had tried various means to stop the bleeding even to the employment of red-hot iron to sear the part, but with no avail, the child gradually sank under the loss of blood by the severe means employed, and died. Of course being a privileged man to kill or cure, there was no post-mortem examination or inquest. How often have cases occurred in which healthy children judiciously reared have had three or four teeth before the mother has been aware of

the fact! All goes on well enough as long as the child is receiving its nourishment from the mother's breast. The food properly digested, is by a provision of nature rendered into nutriment perfectly adapted to the child's constitution; but as I said before I have known all kinds of hard substances given to the weakly child when but four or five months old; bacon, fowl, &c., hard of digestion, have been crammed into its stomach and the excuse made is that "the child must live." The doctor is then sent for, and he not knowing what has been going on instantly cries Oh! it's cutting its teeth! From the advocacy for the lancet one would imagine that instead of a soft spongy gum that the teeth had to worm their way through a hard plank. Has God properly provided for animals and left infants to the tender mercies of medical men, bent upon such a mode, as they call it to assist nature? Is it necessary to increase the miseries that flesh is liable to by such inhuman practices? By no means. One very injudicious practice universally adopted on the birth of a child is almost immediately to take it to the full blaze of light and expose its tender pupils to the glare of day, submitting it to the inspection of admiring visitors. A pity it is they do not learn a lesson from nature, for we find that a dumb animal gifted with natural instinct will shield the eyes of its young from the light and the cat ministers to the nourishment of its young nine days before their eyes are allowed to see their parent. They require the most acute sight for

penetrating into the darkness and therefore nature has beneficently provided that a certain lapse of time should take place after birth for that end. Teeth as you are all aware are composed of bony matter covered externally with a thin coat of hard substance called enamel, and vitality exists in them as well as any other part of the body, for they are furnished with nerves and blood-vessels. The first set appear about the fifth or sixth month, and by the eighteenth month they have generally cut their way through. About the sixth or seventh year a new set appears, called permanent, as they continue through life. Sharp-pointed ivory surely cannot have much trouble in forcing its way through a soft and spongy gum. I must now pass on to the subject of worms. A strange idea appears to have been entertained on the subject of worms, treating as usual the effect instead of the cause. Worms are of three kinds—small, white round, and tape worms, and various nostrums are sold for them which have been proved greatly prejudicial. Slimy matter or mucus is the bed in which these creatures are generated and generally brought into existence by indigestion and unwholesome food. A healthy digestion must therefore be the chief aim, by not heeding this important matter a cold phlegm is prepared for them which is the only element they can live in. Like water being made first for fish to swim in so is the phlegm unfortunately first created. Guard then against unwholesome food and bad digestion if you would wish to avoid such an annoyance as

worms, and bear in mind that these are the originating causes to get rid of. Worms appear most frequently in persons of a relaxed habit, which frequently causes this slimy or mucous matter. Naturally worms are only consequent upon the decease of a child. These signs of indigestion (or worms as it is called) are the picking of the nose, grinding of the teeth during sleep, foul breath, griping of the stomach &c., and by the use of calomel and the various worm medicines recommended for this many hundreds of children have been hurried to a premature grave. Directions for this complaint will be found in 208th page of my "Guide to Health." I now exhibit a specimen of bad nursing. The female who owned this skeleton was 79 years of age and lived in Paris supporting herself by her needle. Her body is twisted much like the form of the letter S with her feet horribly bent inwards. Miserably deformed as this object was she was remarkably proud in her spirit. There was a similar case of a child I knew of, whose mother was a baker, her father was compelled to enlist as a soldier and as is too often the case in France she was herself consigned to the care of a nurse who shamefully neglected her. Speaking on this subject I am reminded of the custom in France of nurses coming from various parts of the country to Paris on a Thursday to be hired in that capacity all returning by train to their various homes. On one of those occasions several of these guardian angels of our helpless



BAD NURSING.

infancy, were returning by the rail and before they had had time to become thoroughly acquainted with the lineaments of their several charges or even their sex or dress the carriages ran off the line, overturned and they were thrown in one incongruous mass upon the banks. As a matter of course all was confusion, one claimed and contested her right to one child, while numbers declared they were at perfect loss to know even the sex of her child and

there is very little question that many claimed children that others received and whom they never bore. No doubt plenty of changelings was the result of that day's mishap. I have here the skeleton of a fashionable Spanish lady for which I paid £12, and as we often hear doctors talk of spinal complaints here is an undoubted specimen of the manner in which the spine may be curved and twisted by bad management.

LECTURE IX.

On Consumption, its Causes, &c.

Mr. Chairman, Ladies, and Gentlemen,—

If there be one more fatal disease than any other, and which is more insidious in its attack, it is consumption; and though it be a well known fact that sixty thousand of our fellow-creatures in Great Britain, are hurried from time into eternity by its devastating ravages, yet, alas! on this subject also the medical profession are dreadfully ignorant. This decrease in the population has been ascertained by the registrars' accounts and entered under the head of consumption. It is a disease that confines itself to no sex, station, or grade of society; the lovely female bursting into life and like the opening rose spreading its fair leaves before the gaze of the admiring spectator, and fondly dreaming of a happy future; the hope and blossom

of a lovingly-endeared circle, and surrounded by all that heart can wish, is suddenly seized, laid low and prostrated, on the bed of affliction; her pale haggard and emaciated countenance telling the awful and dismal tale of this grim ravager Consumption. The destroying angel sends forth his pestiferous breath and the warrior that has braved the tyrant in a thousand shapes, marched at the head of victorious troops spreading carnage desolation and wo at every step, is seized with iron grasp and in his turn compelled to sink beneath its influence. The gay and dissipated scion of nobility who has run his giddy round of pleasure and debauchery, the courted and admired of a numerous train of parasites and partakers in his revelries, he too is brought to submit to the stern decree and bow to its insidious attack. Nor does it spare the child just launching into life, the delight of the mother's eye and the pride of a father's heart, the blight has passed o'er the beautiful bud and a rude hand has snatched it from the parent stem. Joy and happiness, long life and prosperity, has spread its opening landscape to the admiring gaze, but how suddenly has the chilling blast nipped their fond expectation and laid their prospects in the dust! The lately wedded pair also, bounding with joy in the fresh era of their existence, in the pride of life, just entering upon its duties with bright prospects and in fancied security, have found the veil rudely and suddenly withdrawn, the landscape clouded, the sky overshadowed with portentous gloom, for the pale monster

has claimed the blushing bride and the young man has been left to mourn the severance of all his earthly joy. Yes, high or low, rich or poor, it spares not; anguish deep and poignant succeeds to high hopes and joyous expectations; the broken-hearted parent and the bereaved child follow alike to the last resting-place the victim of this fell monster. And amidst all this vast desolation where is the medical skill of our far-famed country? Echo answers where? After years of toil and close application has science found out no remedy to stay the ravages of this tyrant? The faculty confess themselves at fault and I shall even have to give you the conflicting opinions of some of the most enlightened of that so-called noble profession. It is a most humilitating circumstance that out of the sixty thousand above referred to nineteen-twentieths of them being the young of our land, under thirty years of age, should be thus swept away under the eye of medical science. Why then call in question the motives and abilities of any aspirant who, with philanthropic feeling for his fellow countrymen, with soul burning with zeal for the safety of man, bursts into the arena and promulgates his plan for their safety? Why I say should the motives of such a being be impugned and an attempt made to stop his course in this mission of mercy? Instead of hailing with open arms a benefactor like that the sneer of contempt, the disdainful frown, and the ungenerous and insulting cry of quackery is raised, though they (the

legalised class) have as a profession themselves failed, as I before observed, in arresting its progress. Truth will however triumph, and lifting up its banner in proud defiance soaring aloft eventually bear down all opposition. In referring to this disease I cannot perhaps do better than give you an extract from the "Diary of a late Physician," the writer once in the medical profession is now a Queen's Counsellor and lately proposed himself as a member for Finsbury—a man of no ordinary talent and celebrated as the author of various works. He observes regarding this direful malady :—"Terrible insatiable tyrant! who can arrest thy progress, or number thy victims? Why dost thou attack almost exclusively the fairest and loveliest of our species? Why select beautiful and blooming youth instead of haggard and exhausted age? Why strike down those who are bounding blithely from the starting-post of life rather than the decrepit beings tottering towards its goal? By what infernal subtlety hast thou continued hitherto to baffle the profoundest skill of science, to prostrate utterly the uses of experience, and disclose thyself only when thou hadst irretrievably secured thy victim and thy fangs are crimsoned with its blood? Destroying angel! why art thou commissioned to strike down the first-born of agonised humanity?" I will now relate a few of the principal causes of this disease, and observe in the first place that insufficient clothing in our variable climate is one great cause. As much danger is to be apprehended

from this practice as heaping upon the frame enough to enervate and enfeeble it. Persons are frequently injudicious in this respect. A little precaution like that of providing a piece of new flannel for the chest, and in cases where the individual cannot bear the irritation which it may cause to the skin, they can easily line it with some fabric of sufficient texture as not to preclude the virtue arising from it. Some use chamois leather in preference, but where labour is likely to cause perspiration a better preservative than flannel could not be adopted, as it will prevent much evil arising from checked perspiration. Damp shoes stockings and other apparel, are too often allowed to remain upon the person whereby the natural heat of the body receives a sudden chill and the consequences are often fatal. Alternations of heavy and light clothing should be avoided. There are many that are such sticklers for precise days that changes must take place at one given time and no other, whatever the actual state of the weather may be. Many of our youth in travelling, disregarding the discreet admonitions of more advanced age, have scorned to take the necessary precautions, and after years have given them reason to repent at leisure and caused them to regret their folly. Damp beds are a fruitful source of this disease and many persons to prevent risk adopt the plan of sleeping within the blankets when at a strange house, where they entertain any fear on this head. There are many predisposing causes to

this disease and it is often induced by peculiar employments. The dust arising from the carding of cotton, grinding woollen rags, inhaling mineral fumes, noxious gases, and unwholesome air. One frightful source is, running (as girls are apt to do) from a heated work-room or factory, with their necks bare, into the open and sometimes damp air, perhaps only throwing round their necks a very thin handkerchief not sufficient by any means to protect them, throwing off winter clothing too early, midnight debaucheries &c., &c. Reminded again of beds a very frequent practice prevails of putting a friend into the best spare bed which generally happens to be the damp one, having not been slept in perhaps for a month. Where the disease is known to have made a victim a fire in the sleeping-room, lighted a couple of hours before retiring to bed and the same before rising in the morning would be found a great alleviation of pain and relieve the difficulty of breathing &c. It is in fact absolutely necessary, and may be the means of lengthening the existence of the invalid for years. The sudden transition from a heated atmosphere into the cold air without additional clothing, and close unwearied application to sedentary employments with little exercise in the open air, have been the forerunner of consumption, and having been myself a victim arising from this very cause it may not appear egotistical if I give a short narration of the various circumstances connected therewith. My father in the early part of his life was employed in the

sea-faring line, but afterwards he and my mother engaged in agricultural and farming occupations in America, and I was therefore employed in the same pursuits. I certainly disliked the employment and anxiously longed for my emancipation from such thraldom. A certain doctor living in the neighbourhood was accustomed to spend his evenings and chat with my father at our house, and we were glad to hear his adventures. Being of a kind and benevolent disposition, he fired my imagination by his varied conversations and at last began a little to notice me. Perceiving the interest I took he at once asked me if I would be a doctor but it was the farthest from my father's wish however, that I should be a doctor, for he had other views in store for me. Dr. E—— guessing shrewdly my wishes, and knowing my dissatisfaction with my lot, kindly lent me Ainsworth's Dictionary, Thatcher's Dispensatory, Bell's Anatomy, Denman's Midwifery, and other works, a ponderous weight of valuable learning, which I contrived to secrete in my bedroom, and devoted the chief part of night after night to their study. Aware that I could not have my friend constantly at my elbow to explain any part of my studies I procured several sheets of foolscap paper on which I entered all my questions, leaving sufficient room for the answers which I obtained from Dr. E——. About one year after the commencement of these studies my sister was taken ill, and I watched her case narrowly. Dr. E—— was called in and his first

question was "Albert what do you think of your sister's case?"—"There seems," said I, "to be an inflammatory action in the hepatic region, or inflammation of the liver, and the epigastric region sympathises."—"What would you give?" said he. "I should give," I replied, "expectorants and diaphoretics."—"Well, go my lad to my medicine-bags" (which he generally went prepared with) "and put them up." I did so accordingly, unwrapping the various powders and taking out the requisite quantities, I weighed them in the scales and administered them to my patient. I shall not soon forget the astonishment of my parents during this scene; they appeared transfixed to the spot. I adopted the plan also of putting hot bricks to my sister's feet. On the doctor's calling the following day he again asked me how my patient was getting on. I told him she was rapidly approaching convalescence and only required a few tonics and stimulants to complete the cure. "Go and put them up then," said he, not interfering himself at all in the affair. Some time after this as I was working in the garden amongst the onions (an occupation my soul much loathed), my father came to me and said "Albert! thy mother and I have been talking of thee Albert being a doctor. Where didst thou obtain that knowledge that enabled thee to cure thy sister?' I replied "When thou wast asleep father in thy bed, I was hard at work toiling by the midnight lamp, over my books, and can show the result of my labours." I then ran joyfully

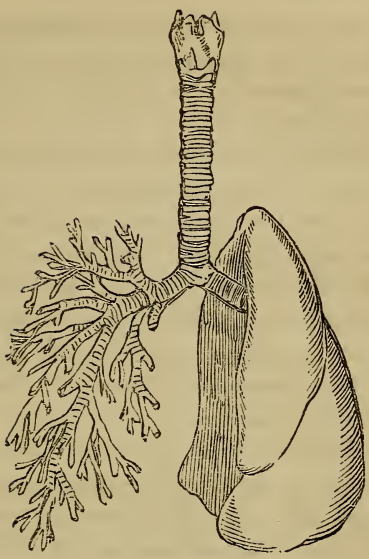
upstairs to my bedroom, brought down my lot of books, and my large sheets of foolscap paper, closely written, with the questions and answers. Having looked them over and expressed his astonishment at the evidence of my toil, he at last sent me to my mother, who corroborated what my sire had told me, adding that my father had at length consented that I should go and study under Dr. E——. Though my mother urged that I should remain till she could have time to arrange my clothes and the few other things I required, I put on my hat immediately, not waiting for fear of my father's changing his opinion, and in double-quick time ran joyfully to my friend's, the doctor. Having thus far obtained my desire I studied closely, and from my sedentary employments indigestion resulted; what means there were then in existence were used in my behalf, but with little effect. To mend the matter I caught a cold the following autumn. I was then about sixteen years of age. During the warmer weather I rallied, the cough leaving me, but the following winter I caught another severe cold with which I was troubled more or less for three years, gradually getting worse and worse, the disease gaining ground and becoming more firmly rooted in my system. It was in fact a decided consumption. I was at this time as bad as Joseph Wickes, for I was reduced to 60lbs. weight, and as to my fingers I could see daylight through them. At this time I expectorated three pints of matter a day, and sometimes a pint of blood. My

master visited me continually for he took a lively interest in me, and brought at various times during my illness as many as nine doctors to see me. Had there been a remedy in this wide world that he could have applied it would have been procured for me, for all said I must die and I believed it. To this day my right lung is fastened to my side. There was a portion of a tribe of Senecca Indians that obtained their livelihood by basket and broom making. They lead a wandering life and the farmers residing throughout that country (the United States), show them every kindness. On one occasion an old gipsy-looking woman of this tribe, came to our house and requested a draught of cider, and my mother gave her a mug of it, this being a drink that these wanderers are very partial to. My mother having left my bedroom door open while the Indian was drinking, she espied me and said to my mother "Is that your son?" She answered it was, and permission being granted, she came in and felt my hand, saying, "White man no cure you." I myself felt assured of it, however I begged my mother to take the woman away. She asked my mother afterwards various questions, and she then said "I can cure him and will for a gallon of cider." "Indeed!" eagerly exclaimed my mother, "you shall have a hogshead if you will only cure him." My mother on returning to my room said, "that woman says she can do you good;" she would not trust herself to say cure. My own hopes were however very faint, but seeing my

mother bent upon the trial I consented, for I was willing to try any means to ease my mother's mind. A short time after, this child of nature returned with an apronful of nature's gifts which she had gathered in the adjoining woods, and among those herbs was that useful and powerful stimulant prickly ash. She set to work and made a strong decoction and with a cheerful countenance gave me a wine-glassful with her own hands, saying without any hesitation but in a confident tone, " this will cure you." After the departure of the woman, I laid quiet, anxiously but patiently watching the action of the medicine. I was not suffered to wait long for a comfortable glow was very soon diffusing itself over my whole frame, and though it was the month of June I had felt not the like before. A pleasant moisture bedewed my hands and I felt as one reprieved from a sentence of death. I exclaimed with joy " the medicine will cure me." A silent tear started to my mother's eye for there was evidently a joy there that none but a mother's heart can feel. I had rich parents and every chance of recovery, I therefore mended rapidly and when able took plenty of out-door exercise. I made a compact with my mother not to say a word to Dr. E—— on the subject, who on one of his visits congratulated me on my recovery, bringing with him three doctors to witness as he fondly imagined the successful mode of treatment he had adopted ; and though I appreciated the kindness of their visit I could not help saying to myself, *what a set*

of fools you all are! At a succeeding interview Dr. E—— broached the subject of my returning to my studies, urging that I had not quite finished my term, nor attended lectures, and therefore not eligible for a diploma. I asked him if he thought me as forward as lads generally of my age; he replied I was, and much more so. Then said I, it is not my intention to return for I was a fool and we were all fools together. I told him I had been cured by an old woman and I agreed to take him to see her. When we arrived at her tent the instant the old woman saw me she expressed her joy at my recovery, and I turned round to my master and said "this is the *doctor* that has saved my life." He looked at me in astonishment, but it was greater still when I stated I had all his bottles safely preserved, and on our return I opened the cupboard-door and displayed the goodly regiment of rank and file of which I made him a present, to administer to some other poor luckless wight that might fall into his hands. I then told him I meant to study in another college, and I immediately formed my resolution, threw in my lot amongst those roving tribes, learnt their trade, imbibed their tastes and habits, and diligently gleaned from them all the information I could regarding the various herbs barks, &c., with which they were acquainted. I eventually came in contact with that truly great and clever man Samuel Thomson of America, and from him I derived much valuable information, as a result therefrom is the benefit

I have been the humble instrument of rendering to my fellow creatures in England. Though to obtain all the information possible on so important a subject as medical botany I have associated myself with those roving tribes, learnt their trade even of basket-making, and on the other hand been associated with Thomson, yet as Burns says "A man's a man for a' that," and I have thus been enabled to obtain a fact, a lasting truth, of which many have reaped the benefit. Consumption is an attack on the lungs, the organs of respiration, which receive the air when we breathe. If there be any impediment therefore to the free play of those organs it cannot but be attended with serious results. The general symptoms of consumption are a harassing cough, loss of flesh, shortness of breath, pain in the chest, the expectoration of a mucopurulent or globulous matter. There are numerous glands on the lungs which give a lubrication to that organ, these pulmonary glands becoming diseased enlarge, form abscesses, suppurate and discharge their contents into the air-passages, rendering the lungs cavernous and hollow. The matter expectorated is the contents of these said abscesses and more or less mucus, sometimes mixed with blood. The cough may arise from this lodgment or the influence of the air in contact with the ulcerated surface of the diseased lungs. The lungs are situated in the higher part of the cavity of the chest on each side of the breast-bone, a membrane dividing them. They are generally of a dark-bluish



THE LUNGS.

colour, in youth of a more pinky cast. On their inflation with air, in the act of breathing, the cells expand, and the blood being sent from the right side of the heart and spread over the cells is exposed through an extremely thin membrane to the air. Through this exposure the blood receives a quantity of oxygen or vital part of the air. If I am asked what oxygen is I would reply it is the gas that gives brilliancy to that light, and a miner will tell you that so long as his candle will burn in his downward course into the subterranean caverns, so long is he himself able to breathe and entertains no fear; but as soon as he finds that the

light becomes dim and loses its brilliancy, so soon is he aware of his approaching dangerous ground. Nature never presents this principle solitary, nor can it be insulated by art. It is an active principle of combustion uniting itself always to bodies which burn. Throughout nature it is diffused, forming part of the air we breathe, of water and of all animal and vegetable substances. It is the cause of animal heat and hastens germination, and therefore forms the most important ingredient in life. About one gallon of atmospheric air is received by these cells every minute, which gives to the blood twenty parts of every hundred. I spoke of a membrane covering the lungs, this is a thin transparent cover called *pleura* and gives name to a disease called pleurisy, which is an inflammation of this membrane. Every seven minutes the blood makes its course through the whole body receiving the oxygen which is the fire of life, and as indispensable to the frame as heat to a baker's oven. When the lungs become diseased there is great languor experienced and though you may perhaps be conscious of taking the adequate quantum of food necessary for the support of your body, still if these air-cells are closed by the formation of tubercles, no oxygen can be imparted to the system, which as I stated before is absolutely necessary for the support of animal life. For this there is little chance of a remedy save through the means of the blood. Make the tree good if you wish the fruit to be good. So delicate an organ is the lung that you have no

chance of treating but through that medium. Air then as before explained, proceeds through the windpipe or as it is called trachea, a tube provided with incomplete rings, composed of cartilage in front and a fibrous membrane behind, which yields to the action of the œsophagus to which it is connected. The rings sixteen in some cases eighteen in number preserve this delicately sensitive tube from outward danger, and it will on a moment's consideration be seen that care is necessary in the passing of the food down the œsophagus, that it be properly masticated and so not interfere with the trachea on the other side. The bronchi taking their rise from the trachea divide into two tubes communicating with the lungs, which latter expand and contract twenty times per minute. The faculty divide consumption into seven different kinds. The first description they call incipient or without the expectoration of any pus or matter ; the second humid, or accompanied with expectoration ; the third scrofulous tubercles containing deep secretions of matter, indisposed to heal ; hæmoptysis, a fourth, a kind attended with spitting of blood ; fifth, exanthemata, beginning with fever and followed by an eruption on the skin ; sixth, chlorosis, accompanied with heaviness, listlessness to motion, easily fatigued, palpitations of the heart, pains in the back loins and hips, with various other symptoms ; seventh, syphilitica or venereal ulcer on the lungs, and it is also called hereditary. An insulated ulcer of the lungs, whether arising from inflammation of a

bronchial membrane, the rupture of a blood-vessel or other causes may be cured, but when the lungs are studded by tubercles approaching to suppuration the case is very different. The ulcers frequently are acrimonious, you cannot get at them, there is almost an impossibility of guarding them from the atmospheric air and preventing injury arising from that air, all these are great difficulties that cannot be surmounted. This is not all. When doctors disagree who shall decide? Dr. Stahl attributes consumption to Peruvian bark being used for it, while Dr. Morton calls it an effectual cure. Dr. Reed ascribes its frequency to the use of mercury, whereas Dr. Brillonett says it is only curable by that deleterious drug. Dr. Rush considering it an inflammatory disease prescribes bleeding, purging, cooling medicines and starvation; and on the other hand Salvadori prefers tonics, stimulating and generous diet. Galen, Beddoes, Dessault, and Parr, all as doctors disagree in their mode of treatment. In such a case what is to be done? The blood is driven through the system with great velocity and instead of the pulse as when in health beating at sixty or eighty it is increased to from one hundred and twenty to perhaps one hundred and forty per minute. There is therefore an awful amount of friction and wear of the machine and the lungs perhaps can get no oxygen, the system is thus debilitated and gradually wastes away. Talk not then of taking away blood. The system of Salvadori of administering tonics seems certainly more

feasible. Various kinds of employment will cause this disease. Dust arising from the carding of wool, needle-pointers, stone-cutters, ivory-turners, millers &c.—debauchery, mothers suckling too long while in a very weak state of body, and a variable state of the atmosphere are a few causes in addition to what we have before named. I have at present more than one hundred patients labouring under diseases of the lungs and therefore must of necessity have a little experience as to the manner the system is influenced thereby. A great quantity of matter we will say has concentrated on the lungs, expectoration may take place in large quantities, and the question is how to get at them for they are beating at an increased speed and must not be stopped as a matter of course, or life ceases. I would compare a doctor to a contractor and suppose him to enter into an engagement to supply within a given space of time, a certain amount of machinery, he makes his calculation to a nicety, he forms his plans, not a moment is to be lost, his hands are all set to work and everything must be carried through with mathematical precision. But supposing that when only part through his allotted task the bellows gets torn, it being a principal agent in this great undertaking if he is stopped now his contract is dissolved, and perhaps himself ruined. In his extremity, for necessity is the mother of invention, and she is frequently obliged to set aside all laws, you engage a workman to station himself at the bellows, and he finds that at each fall or rise of it

he must manage to take a stitch and it is only by this means the man's contract can be saved. What would you think of such a bellows-mender if he like the doctors generally do, contrived unperceived to rip a hole instead of mending it? and yet that they assuredly must do, for as we have before observed the conflicting opinions of the faculty cannot possibly both be right. The lungs must be kept a-going, and you send for a doctor and instead of healing up the breach he widens it, and you never think of asking for damages for the life of the patient, whereas had the workman, before alluded to, so acted, you would undoubtedly have made him pay damages for his wilful deed. Now as to palpitation of the heart many a patient has been sent out of the world who has been treated for this complaint, whereas the true and real cause has been diseased lungs. As a separate disease it seldom exists but is a reaction in the fluids. Over-exertion, sudden excitement, large and sudden evacuations, and violent emotions of the mind, are some of the causes of this extra beating of the heart. Hundreds of patients come with weak lungs, and with every extra exertion the heart sympathises. One of my patients of the name of Court, living in Somers' Town, mentioned in the second volume of the Journal, was so dangerously ill that he could not lift a weight of a few pounds without increasing the beating of the heart, and it was evident that his complaint was weak lungs and not a diseased

heart, which did not receive the proper amount of fluid. That the heart may become diseased from the enlargement of its ventricles and from the contractions of them we are not prepared to deny. Those ventricles may be diseased or the aorta may ossify, for which neither botanical nor mineral medicines will avail. The liver will sometimes become torpid, or inflammation take place, and the gall-bladder may not act, in which cases the equalisation of the circulation will be found to be an object of the highest importance. And yet the medical profession contend that nothing but mercury will reach or influence the liver. I have seen many of the in-patients of the Brompton Hospital but I lose many labouring under this dreadful complaint because I am often called to see them in the last stage of the disease, and there is no chance left of saving them, and even Hooper, in his Medical Dictionary (a standard work of universal reference) declares that consumption is a disease *that the arm of science cannot reach.* The last importation for the cure of consumption seems to be cod-liver-oil, and I have seen a large number that have taken it with no success, for it is acknowledged to be extremely uncertain in its action and no dependence can be placed upon it. I noticed in a publication the following corroboration of that opinion " Cod-liver-oil, in our practice, has always been most deceptive in its results; improving the appearance, perhaps the condition of the patient to-day to leave him in greater prostration and

danger to-morrow. Cod-liver-oil is a pretty varnish that polishes over a decayed spot, and allows the canker silently to work its way beneath the surface." These are remarks, not by a a medical botanist but have been appended by the editor of a publication to an article taken from the *Medical Times* as the result of their own experience. I cannot close without giving you a very important hint, being reminded of it from seeing it in a late publication. I have often reprobated the exposure of the bare neck &c. of our youth as a mischievous course, and I see it is unfortunately the fashion at the present day, for mothers to allow their children to have their necks arms and legs exposed till the skin is mottled by a stagnant venous circulation (blueness of the skin). From this inconsiderate practice tubercles, early consumption, the distress of so many families frequently arise. From this circumstance indeed they frequently date their origin. In children more particularly the skin should be excited by rubbing, sponging &c. and protected by a proper clothing, light in summer and warm in winter, with calico next the surface at all times. Such exposure as I have mentioned is only fit for Southern climes and not for our variable one. The same publication relates of a tombstone in New Jersey, America, as bearing the following singular but warning epitaph, " Died of thin shoes, January, A.D. 1839;" another injudicious practice much to be deplored. A great deal more might be advanced on this important subject but having

given you some of the causes, history, and ill success of the medical faculty in treating of the disease and the difference of opinion regarding it, I will reserve my further remarks for a succeeding lecture.

LECTURE X.

Consumption, its Pathology and Cure—continued.

Mr. Chairman, Ladies and Gentlemen,—

To a reflecting mind looking abroad on the evident adaptation of well-established laws, adopted for the governance of creation, we are inclined to ask whence comes it then that amidst all this enlightenment of science and progress of civilisation that the science of medicine should still be wrapt in so much mystery and uncertainty? On every hand you perceive all other branches are guided as it were by certain principles, all adapted to consummate in one given end. You proceed in a certain course and you may confidently assert there will be a result in one kind as anticipated when you commenced the undertaking. All the works of nature are governed by the great architect according to laws; cast your eye to the noble expanse encircling the globe, descend to earth and watch the growth of vegetable creation, view all animate nature, the soul is lost in the infinity of subjects evidently controlled with mathematical precision, all created to blazon forth the great wisdom and admirable con-

trivance of a higher and benevolent Being. In the animal frame too there are laws by which the functions of man are guided. Health, that great blessing to the human race, without which the gold is dimmed and the luxury of the opulent palls and satiates, his great possessions are an eyesore, and he traverses his extensive domains in wretchedness and misery: health too is governed by laws, yet how is it trifled with! Giddy thoughtless youth, and old age too, seem to set all its laws at times at defiance, and treat this blessing with the greatest indifference. It is a guest that may too soon take its departure but not so soon to return when too much trifled with. Is it not the duty then of all thoroughly to understand what those laws are? You break the civil laws of our realm and it is held as no excuse if you plead ignorance, the infringement of them meets with punishment, whether the individual be leading the life of an isolated misanthrope in an almost deserted village, or is the denizen of an overcrowded city, he is equally amenable, and insulted justice stretches forth its hand to inflict the penalty. Sciences are laid open to the view of man and into their devious paths all may tread. Is there any law then to interdict man from studying the peculiarities of his own frame and adopting the various remedies placed in his hands for the restoration of his health? To the investigation of the subject you are invited and let not the fearful array of the medical fraternity deter you in the pursuit

of that knowledge which it is your privilege to enjoy. So deep as the sciences of anatomy and physiology happen to be it is hardly to be expected that every working artizan can become thoroughly acquainted with such subjects in all their various ramifications. A vast and extensive field like this would require several years to obtain a thorough acquaintance with it, still by a little attention, a very good knowledge of this masterpiece of God's exquisite workmanship may be obtained. Great advantages would result from such a study and many ills would by this knowledge be avoided. Were a person thus acquainted with his system he would not thwart the endeavours of those that wished to bring about a certain beneficial result; nor would he pester by ridiculous questions as to the exact course adopted. Often has it been the case that for lack of this knowledge a man afflicted with a slight ailment fancying his death at hand is thereby frightened into more alarming symptoms. Neglect of apparently trifling ailments would be avoided and important organs would not be allowed to become diseased and past remedy, from the insignificance of their first appearance. Having made these few remarks allow me to refer to an attack that has been made upon me by the faculty for advocating the principles of temperance, though a circumstance of this nature is hardly to be wondered at, for the cry is echoed on every hand "our craft is in danger." Is it not strange, yea "passing strange," that persons in the political as well as

the literary world should have the privilege of not only entertaining any peculiar set of opinions they may think proper, and even of promulgating them ; whereas if a man from a conscientious motive, and for the good of his fellow creatures dares to warn them of impending danger, an opposition is set up, and this benefactor is to be held up to public opprobrium and abuse. I have ever held it to be of the highest importance that the principles of temperance should be strictly adhered to, fully conscious in my own mind of the utter impossibility of the health of man being maintained so long as the blood should be impregnated with such deleterious compounds. The pure stream of vital existence vitiated by these noxious fluids have blasted the health, ruined the constitution, and blighted the fair prospect of many a youthful aspirant to the laurels of fame. Youth with every chance, bidding fair to fill very important positions in society, and figure in the pages of history, have by these practices been cut short in their career and dragged to a dishonoured grave, preferring a short-lived existence in the indulgence of sensual appetites to a honourable course and the esteem of a more enlightened public. Much as the faculty may choose to depreciate our worth and endeavour to damage our reputation with respect to our principles of medical botany, we have with some of the profession even worked in concert and have taken them to see our own patients, thus enabling them to form an unbiassed opinion of our practice. We have likewise returned the compli-

ment, as a natural consequent some of them confess their prejudices thawing away before the sunshine of truth, and there is every likelihood of their becoming warm adherents of the system we advocate. Lobelia has hitherto been with most of them the scarecrow, and a point they have betrayed much ignorance upon, but if my friend Wickes should ever come over to England [which has been the case since the delivery of this lecture] I trust he will himself tell his tale of lobelia, and that the ten pounds of African cayenne pepper have not as yet quite destroyed his throat. There is a common opinion that the frequency of taking herbal medicines will destroy their effect, and like opium to the Turk, or the practices of smoking and drinking, the constitution may become so accustomed to the potion as to be almost a second nature; but I would ask such persons if a beefsteak ever lost its effect by being repeated 365 times in the course of a year. It contains nutriment in accordance with the wants of the animal frame as do the herbs, &c., recommended by our system. The cod-liver-oil so often employed by the faculty, and in use at Brompton Hospital as I have said I consider a mere farce, for I have had many of those patients myself under treatment and witnessed various instances of the inefficiency of that article. Many persons treated for consumption have only been labouring under weakened lungs, which have sometimes become torpid and unable to perform their office. I had a case at Leeds in a person of the

name of Westlake. When his friend first came to me he told me he had employed a doctor but to no purpose. He was expectorating very offensive matter, and anxiously inquired if I thought there was any chance and could relieve him. I told him there was but one chance which was for me immediately to take a cab and drive him to my own house. With some difficulty he was got up the stairs of my house. This was in November, and at that time he was evidently labouring under an ulceration of the lungs, so offensive was the matter that the effluvium tainted the atmosphere, and I could smell it directly I opened the hall-door, though he was in a back chamber up stairs. I kept a fire constantly in his room and saw him four or five times during the day. His extremities were swollen and some thought that instead of holding out hopes for him I ought to see that he was prepared for another world rather than buoy him up with any expectation of remaining in this. I recollected my own case and I remembered also that of Wickes, so I resolutely set to work, for I felt confident that though his lungs were ulcerated and he was expectorating from his stomach three pints of matter in the course of twenty-four hours, and that too more like stinking fish than anything else, I still felt assured I could bring him round. Instead of sixty grains of lobelia, the stated poisoning dose of a certain doctor at an inquest, I gave him a quarter of an ounce for thirty-five days which occasioned powerful vomiting. I gave him also

seventy doses in thirty-five days of the pulverised herb, being two each day, making almost twenty ounces. Besides the pulverised herb he had likewise a strong preparation or tincture of lobelia which he took by sips during the night, which amounted to several pints, and he also took several pounds of cayenne pepper. Many have an idea that a cough in consumption is a dangerous symptom, that is not the case, it is rather a means of throwing off the putrid matter and acts upon the system similarly to the working of a pump in a sinking ship. If narcotic stimulants be administered to a patient troubled with a cough it frequently stops the expectoration and by so doing prevents the purulent matter or pus from being carried away. The acid tincture of lobelia to promote free expectoration in this disease is of the highest importance, as well as pure stimulants to produce a healthy digestion. John Lee who lived at Leeds was another of my patients previously given up to die. His friends despaired of his cure and indeed when I was applied to, the man looked as pitiably emaciated an object as I had ever seen. He had vomited two quarts of blood at a time and his wife when I saw him watched every motion of my eye with trembling anxiety. "What think you of him?" she at length gasped out after an interval of suspense. I said I could and would soon give her back her husband. Experience, in this case likewise gave me confidence in making such an assertion. Dr. H—— till that time had

the case in hand, but I required them to dismiss him if they desired one whose practice was so diametrically opposed to his. It was agreed and he was accordingly informed that such was their wish. Dr. H—— gave them accordingly to understand that a week would end this man's life, he however lived over that, and a month was then given but he survived and got considerably better. He unfortunately afterwards went to see some relations, acted imprudently, and caught a severe cold. I prescribed the same course again and the result was a perfect cure being effected, the man now is as strong and healthy as any man can well be. Cayenne pepper has been found very serviceable in stopping the bleeding of the nose. The case of the Harbour-master at Hull was a rather singular one, and will be found recorded in one of the numbers of the *Botanical Journal.* He was one night awoke from his sleep by a bleeding of the nose which continued through that night and following day. Various means were resorted to such as plugging the nose with lint steeped in vinegar and other powerful astringents, as well as pouring of cold water on the head with a sponge. Leeching, mustard plasters, caustic to the nose, &c. were then resorted to till he was considerably reduced. After a time he was recommended to adopt our treatment and he took a teaspoonful of cayenne pepper in a wine-glassful of hot water sweetened, from which he has been perfectly cured. Much reliance has been placed upon the use of the stethoscope but its use I

deny altogether. The faculty pretend to listen to the action of the internal organs, though as far as sound is concerned there is little to be discovered. I contend that it is only a farce to pretend to decide by its use. I would myself just as soon take a French-horn for the purpose as the stethoscope. Permit me to give you an extract from the *Lancet*, of Dr. James Johnson's. He says:— "It is a common error in young practitioners to consider the heart as organically diseased when its functions only are much interfered with, and this error has become more general, I am sorry to say, since *the stethoscope has come into use*." Stethoscopists have arrived at opposite conclusions on the same case. I had occasion to go to the Fever-hospital in Liverpool and seeing in the surgeon's room a stethoscope, I expressed my unbelief in its use and he in his turn expressed his astonishment at my doubting its value. Many are anxious to have their chests examined but I can generally tell the state by the peculiarity of the beating of the pulse. The doctor before referred to, offered to convince me of the use of this precious article by showing forty or fifty patients in the hospital. We tried several but I could perceive no difference in them and healthy lungs. As it happens my sensitiveness of hearing is very acute, for placed in danger while travelling in the woods I had to depend for my life upon my hearing. When the doctor found I was not convinced by such specimens he excused himself by saying those we had examined

were not so clear as they were sometimes. Evidently he was at fault, and my former opinions were strengthened by the interview. I assured him that I was able to tell as much by the feeling of the pulse as he pretended to do by his stethoscope. To explain how it is done would be impossible, experience alone of the number of diseases to which the frame is subject, their different degrees of virulence and peculiarity, are subjects requiring long and extensive practice to become properly acquainted with. A man may sit himself down to any mechanical employment, for instance a shoemaker ; you may see him go through each process even to the finish of the shoe and yet be as wise as before. I was called to the case of a young lady who had caught a violent cold which resulted in an inflammation of the liver. This is a disease attended with inflammatory fever, tension and pain at the right side of the body just under the cartilages of the false ribs (which I explained in a previous lecture), often pungent like that of pleurisy (that I noticed as an inflammation of the membrane lining the cavity of the chest, stretched over the lungs), causing a difficulty of breathing, a dry cough, &c. It was a species of bronchitis and she became almost a consumptive patient expectorating a quantity of pus. A surgeon had attended her near Camberwell, also a physician who had both given up the case. I examined the case as minutely as possible, and told her friends there was no cause to fear for I felt confident I should succeed in restoring her. She was in a

shocking weak state confined to her bed; I have however been the humble means of curing her and at my last interview left her walking about. Instances like these frequently occurring are proofs loudly demanding your special consideration, and if it be true that so many as sixty thousand of the population of Great Britain alone are hurried from the theatre of this world's existence, and nineteen-twentieths of them are the youth of our land, after all the progress of medical science and the spread of our boasted civilisation, does it not appear a strange anomaly that nothing has been found out by the faculty to stay the dreadful havoc? Yes friends, without arrogance or presumption, but from long and well-established experience we trumpet forth the delightful assurance to suffering humanity, that there is a remedy, that there is a balm in Gilead provided by the Author of our existence for his creature man. As I mentioned in the former part of my lecture nature is governed by laws, instinct draws all animate creation and points out the means by which the bee gathers its honey, hovering from flower to flower; the fish in its native element is provided for, as well as the untutored savage of the woods, by the all-wise Creator, and it is too much to suppose for one moment that the same benevolence so strikingly displayed on every hand has not also benevolently provided remedies by which suffering may be allayed, and where it answered his purpose, the life of man be preserved. Like the medical

profession shall we wrap up our knowledge in mystery? By no means. Our object is to cure and not to delight ourselves in torturing experiments upon our fellow creatures. It has often struck me that the practice of relating a long list of ailments to a doctor before he can prescribe for his patient is about as ridiculous as taking a watch to a watchmaker and being asked what is the matter with it. You would naturally exclaim "that's what I want to know." In prescribing for disease I feel as fearless as I am of the operation of lobelia. One principal and serious charge we are compelled to bring against the faculty is that in curing one disease they endeavour to leave the system in such a state as to be an easy prey to half-a-dozen others. I am reminded of this fact from the circumstance of one of their victims, thoroughly drenched with calomel to such an extent as to be a walking weather-glass ever since he was under them, having lately come up from Newcastle to consult me. It would not be a bad plan if butchers could contrive some means of so impregnating their beef as to ensure their customers being far more hungry after eating than before. They would doubtless drive a roaring trade. Doctors however frequently treat you with a certainty that you will require their services again before long. I would change this order of things and it would not perhaps be much amiss to obtain a legislative enactment by which the faculty would receive fourpence a week from each person while in health, but be obliged to pay

ten shillings per week when any one is sick, by this means health would be secured and illness be the exception. I have related to you the principal causes of this malady by which you will perceive that many of them result in carelessness and the need of youth being efficiently educated in the proper care of their own bodies. As I stated before were a gold watch of a Geneva construction, consigned to your custody, you would not surely tamper and trifle with its delicate machinery, knowing full well how soon it is capable of derangement, and should not the human body like "a harp of thousand strings," be thoroughly understood and carefully guarded? If this were the case there would not be so much need of the doctors. Let me then in concluding this part of my lecture again urgently warn the young ladies of my audience against that injurious practice of tight lacing, giving the vital functions and respiratory organs no fair play and rendering them incapable of expanding as in heated rooms is always the case. Be not like a certain lady who placed in that ridiculous predicament was obliged to have her strings cut and in doing so large wounds were caused by the penetration of the instrument into her flesh. Let the young men of our country abolish the practice of having their houses of call for their customary glasses of beer, causing them to rise in the morning haggard and listless, thoroughly incapacitated for their day's labour. Remember that the constant dropping of water will wear away the hardest stone,

and so a constant practice of this nature will doubtless either induce disease or at any rate shorten life. It is from such practices that the lungs are made susceptible of injury from a cold. I have travelled thousands of miles both in England and America and have seldom caught cold though I have been exposed to severe weather. By taking great precaution I have been preserved to my present time of life and feel as young, athletic, and strong as many men half my age. Few occupations can be more exhausting than public speaking, and I was the first person in America that mounted the public rostrum and declared war against the abominable practices of the medical profession, and were it not that I had enlisted under the banner of invincible truth I should not have been sustained in my arduous undertaking. I shall have an opportunity of showing you the case of a young girl who has been treated by her father from the plan laid down in the "Guide to Health," which I will take the liberty of reading over to you for your guidance in a similar difficulty. Red raspberry-leaves, agrimony, barberry-bark, clivers, ground-ivy, centaury, and horehound, of each half an ounce boiled in one pint of water; when strained, add half a teaspoonful of cayenne pepper, and a quarter of an ounce of Spanish juice; dose—a wine-glassful four times a day, from three to four pints a week. My patients in many of the before-mentioned cases took of the acid tincture of lobelia from half a teaspoonful at a dose in order to promote a free expecto-

ration, and as this is a very debilitating disease, when the system is brought very low, and as a matter of course the oxygen in the lungs is hardly sufficient to carry on life, it is necessary to keep up the system with pure stimulants and tonics, such for instance as stomach-bitters or the antispasmodic powder for producing and maintaining a healthy digestion. Great caution is necessary in the administration of emetics in this stage of disease, and I would wish to caution you likewise against the adoption of narcotics, and the various lozenges that pester our country, which contain much that prevents the expectoration, and though many of them are patent medicines they are none the better for that. You are frequently told that if they will enable you to sleep all night, that unquestionably soothes the patient and must surely be a great point gained. My plan has ever been to cure the disease and restore the patient to health, refreshing rest and sleep will then follow as a matter of course. Now in thus administering narcotics you stop the expectoration, the phlegm accumulates and the patient is placed in a similar position to a ship sinking in the mighty waves, having sprung a leak, and the captain murderously commanding the pumps to be stopped, which was the only means of preserving the lives of the crew. Invariably then remove the cause and the effect will cease. The subject of the lancet has been brought forward and I have been asked what course I should pursue if I objected to the lancet being used for tumours.

I reply that there are cases in which the use of the lancet is indispensable. One case came under my notice of an encysted tumour in the abdomen, which when I had examined I declared ought to be opened to prevent its bursting. I told my patient that I should have to cut deep and near a certain artery. The patient went to Dr. H——, who after examining the abdomen denied the existence of any tumour at all. On my next visit she began to bewail the butchery I had determined upon as unnecessary, but I succeeded in convincing her of its necessity and that I would be responsible for its execution and convince her that Dr. H—— was in egregious error. A quantity of cloths being brought I made an agreement with her female attendant that if she was convinced of the necessity of the operation and would assist me I should do it at their residence, but if not I would at once take her to my own infirmary. This being settled I directed the attendant to hold the large basin and when the puncture was made there proceeded a stream of two quarts of matter, and so strong was the flow that her dress was covered with it. So much I said for Dr. H——'s opinion. The attendant immediately proceeded to Dr. H—— as a penance for her unbelief, and having told him of his error required his bill. When informed of the circumstance Dr. H—— candidly replied "Then Dr. Coffin has saved her life." It is only in some cases that the lancet can be dispensed with. An instance in which more simple means have been of

avail occurred to myself. When a student of Dr. E—— of America a large wart or tumour appeared upon my right hand on the back joint of my middle finger. It continued to increase until it attained the size of a small hen's egg. It had a cancerous look and was of the colour of liver. Means were employed of various kinds to no effect, I then went to consult an eminent surgeon several doctors having advised its removal by a knife. My hand was at this time swollen and my arm rendered useless. On our arrival at Dr. W——'s, a distance of nine miles, we found he was absent, though the student offered to perform the operation. I informed him I was one of the craft and knew better than allow a youngster to meddle with a case of that nature for me. Suffering greatly on my return home I desired my mother to procure me some wood-sage growing near the spot we then were, and mixing it with Indian meal thus make a poultice. I applied this to my hand and when I took it off found the tumour was like the breast of a chicken. I applied it night and morning and a complete cure was accomplished though doctors had agreed that if not cut off the hand would be lost. This is one instance in which the little knowledge that I then possessed saved an operation and was an experiment resulting in the cure of many others. As far as the experience I had during the years I walked the hospitals I can safely say many of their surgical operations were totally unnecessary. A patient of my own received an injury in his right hand, and

having applied to a surgeon he advised him to have the hand cut off. He came to me with a woful countenance, for said he my living depends on my right hand. On examining it I told him to make himself easy for he should have his hand. I used the same kind of poultice as in my own case, giving him a few internal medicines, and before long he was able to wield his hammer as well as ever. For the sustenance of persons debilitated by consumption *lentil flour* is most nutritious. A tablespoonful of this in a pint of milk will afford more real sustenance than all the beer that nursing mothers are ever so clamorous for. This will yield a liquid that will assimilate most beneficially with the blood and is easy of digestion.

LECTURE XI.

The Cholera.

This is a disease of a most formidable and at the same time most inexplicable character. The first record we have of it was its great eruption in Bengal, in 1817, the accounts in India up to 1774 are of a very limited character. Cholera has prevailed in districts far from every source of effluvia of marshes, spreading to countries of entirely different formation. Its progress in 1817 was remarkable. It originated in Jessore and the

country round that city in the August of that year. One branch continued its course till it reached the grand army, having devastated Calcutta it travelled along the Ganges about four hundred miles. Its progress both eastward and westward was remarked as being most strange and unaccountable. It proceeded in various streams attacking Madras, Bombay, Malabar, Coromandel coasts to Ceylon and Mauritius. In July 1821 we find it was in Bombay, then it broke out at Muscat, Bussorah, &c., then it reached Astrakan. By another stream the cholera passed in 1817 from Ceylon to the Bay of Bengal reaching Penang in 1819. In the Philippine islands the malady was marked by an outbreak of a very serious character affording a lamentable specimen of barbarian violence, adding fearfully to the terrors of this pestilence. The Chinese and Europeans were accused by the natives of magic and as the authors of the disease, and as a consequence fifteen thousand lives were sacrificed. In its northward course it reached Canton in 1820 and Pekin in the following year, committing great ravages in China. Europe was not attracted to the consideration of this scourge till 1829 when it again visited Astrakan, and having died away, once more visited them in 1831. It then pursued its course through Europe and in addition to its cold stage now became armed with a severe and fatal fever which had not been observed, or but rarely, in India. The following account appears in *Tait's Magazine* for February 1849 :—The origin of this

disease after all the speculation regarding it is unknown. Those who have studied its progress most profoundly and had the best means of forming an acquaintance with its characteristics are in perfect ignorance of its cause. They ascribe it to atmospheric influence and thus far they are correct, but these influences have an origin of which they know nothing. Moreover we can hardly suppose an atmospheric influence pervading currents of considerable breadth but without a subtilty to spread out and to occupy a large space, yet we find cholera as a disease moving in narrow channels, taking one street and leaving another, even in some instances finding victims on one side of a street while the dwellers on the opposite side are untouched. We conclude from this that the cholera miasma very generally taints the atmosphere, and that it is like gunpowder, not fatal, but when in contact with other causes producing most malignant results. Various causes apparently give vitality to the latent poison. We cannot state anything decidedly as an ascertained fact. The evidence to be obtained on this subject is circumstantial; we have a set of coincidences and little more, but these coincidences are however very remarkable both with respect to what may be called the positive and the negative evidence that they yield. Contagion we believe to be entirely innoxious. By the phrase we mean that a healthy person may be frequently in contact with cases of the disease without experiencing any serious result. Nobody supposes that the disease

at the establishment at Tooting was self-created, that cholera originated there without any cause foreign to the place. It must have been conveyed to Tooting by some channel, and the ordinary opinion is in favour of an atmospheric influence which could not have been confined to this institution alone. A similar influence must have pervaded the neighbourhood and yet we hear of no case out of that great house, from which we infer that the influence in question found no sympathising agencies in Tooting except in this pauper-children's home, or none in sufficient power to produce the malady. The European stream as it may now be termed (observes the *Encyclopædia Metropolitana*) formed two branches, one into the Cossack country, the other up the Volga till it reached Moscow in September 1831. Moscow then became the centre of infection from which streamed three more branches through the country. Archangel, Petersburg, Berlin, Vienna, were severally visited. Having traced it in its devastating progress through other countries we find that the first case seems to have shown itself in Sunderland on the 26th of October 1831; Edinburgh on the 6th February 1832; London 26th of same month and year; Dublin 22nd March also of 1832. There were many instances of its acting very eccentrically, sometimes in lines or belts, corps marching in parallel lines, at trifling distances from each other, and though holding frequent communication, yet it has raged fearfully in one while the other line has

been healthy. Also sometimes it would run along the shores of the Ganges and then as if stopped in its course by some unknown agent would dart across and lay all waste on the opposite bank. This was also observed in Canada. In other instances it would take a complete circle round a village leaving it unmolested, and so pass on its course. After the lapse of a few months or weeks it would suddenly return, and scarcely appearing in the scenes of former ravages would visit this village which had congratulated itself on its apparent escape. Several large towns and cities in its progress along the banks of the Ganges escaped one year but were visited with great destruction the following year. With the exception of Lunenburg Hanover has escaped the visitation as well as the principal towns of Saxony. In 1817 the cholera overrun in India a space of four hundred miles westward while in a southward course only eighty-eight miles was traversed in six months. During the following six months however, in the same course it had extended over four-fifths of the Peninsula. Its progress in Europe was equally capricious. It took only one year to span the base of the Peninsula of India while it occupied twenty years to compass the globe. Cholera has prevailed in all seasons and all periods of the year, under every degree of heat and cold, dryness or moisture. India has however its cholera season. In Bengal it begins with the heats of March and April when the cases are but few, in May it is at its height, in

June it generally declines, and by the cold season of October is said to disappear. It has shown itself at Landorn eight thousand feet above the level of the sea which in Europe is almost the region of perpetual snow yet its course appears to be chiefly along marshy situations and banks of rivers. In Europe and America a second or febrile stage appears to have characterised this disease nearly unknown in India, which most commonly destroyed the patient after he had successfully struggled through the cold stage, as if there were a conjunction of the two diseases of typhus and cholera. The deaths from cholera in Paris was estimated to be 18,402, of all ages, the least number between the ages of six and twenty; greater from thirty to forty, and greatest in old age. The lower classes have ever suffered the most from this disease. In Europe the lower classes residing on the banks of rivers have suffered infinitely more than those in the higher walks of life. Typhus fever and cholera run constantly into each other. One man labouring under small-pox was attacked, the pustules immediately shrivelling and drying up. The poison appears to infect the blood, its constituent parts if not its chemical properties being found to be changed. Having given a short historical account we will now give a statistical one of its ravages in 1849 as a specimen.

Deaths in Paris from cholera of persons who died at their own residences in 1849 were as follows:

March 130, April 694, May 2,426, June 5,769, July 419, August 810, September 670; total 10,218. In London, the quarter ending March 31st 516; June quarter 268; September quarter 12,847; total 13,631. The deaths from diarrhœa in London in that same year were 2,981. During one week of its prevalence in London 1,276 from cholera and 288 from diarrhœa had died. "The remote cause of this disease is unquestionably a poison for at no former period has a person in good health in this country been known to become in a few minutes shrivelled up; his whole body to be of an icy coldness, his face and extremities to turn purple, and with or without vomiting of a peculiar fluid like rice-water, to die in a few hours. Neither is it explicable on any other hypothesis than that of a poison that this disease should spread over countries, which, in respect of climate, soil, geological formation, and also to the moral and physical habits of the population are the most opposite to those where it first originated. Assuming therefore that cholera is produced by the action of a poison, whence does it originate and how is it generated?"—*Ency. Metrop.* Doctors have administered by their usual guess work calomel and opium, indeed all they could think of. The fact is they know not what to give. Questions have been asked as to its being contagious or epidemical and one doctor in York determined to set the matter at rest proceeded at the risk of his life to take the matter from the tongue of a cholera

patient and introducing that matter into his own veins thus set the affair at rest. No injury resulted from it. In badly ventilated towns such as Sunderland a disease like cholera makes strange havoc. The shameful lack of drainage has cost the lives of many of our poorer classes. The symptoms of this disease are a loss of heat which being suddenly let down, the extremities turned cold and blue, the liver, spleen, and the kidneys have been found gorged in blood extending even to the bones, the bladder contracted and empty, the membranes of the brain and cord have been found in general congested. These have been the appearances of the asphyxiated or pulseless stage. Cases of diarrhœa have been found to present a similar appearance. There is no time to dally with the enemy; the remedy should be near at hand, but it is not to be two thousand grains of calomel as found in the stomach of one victim of the medical profession in America. The patient is generally seized with a pain in the navel, sudden and copious discharges which soon partakes of a milky appearance, cold shiverings, clammy sweat of the body, sickness and vomiting, and the countenance becomes wofully cadaverous and shrunken. The extremities then become shrivelled up and blue, the pulse ceases to be felt in the wrist, the living stream is checked in its course and the patient's struggle soon comes to a close. But there is a balm even for this terrible state of things, and we are not left without a remedy. Medical botany like an angel of mercy proffers that remedy exactly

suited to the case, hundreds have witnessed in themselves and can testify to its truth. I have known ice to be laid upon the patient's head though it be an evident loss of the vital principle. "There is an obscurity hanging over the causes and pathology of this disease and unanimity on the subject cannot therefore be expected," writes one author, and if we may be allowed to express an opinion, that obscurity, that thick vail appears to rest on the minds of the faculty as to most other diseases. In India in some cases the premonitory symptoms are giddiness and noise in the ears, the latter so loud as to be compared to the noise of a thousand swarms of bees, to the beating of all the drums in the camp, or to the roaring of the surf on the Coromandel coast. In some instances ten minutes only have elapsed between seizure and death, and in one instance a Jew merchant was closing a bargain when he suddenly vomited twice, fell down, and expired. Many natives at Hoobly were attacked while walking in the open air with vomiting, giddiness, blindness or deafness, fell down and expired in a few minutes. At Punderpore 350 persons dropped down in the streets the one tumbling over the other while walking as if knocked down by lightning. Orton in his work on this subject when summing up his views comes to these conclusions:—"First that the proximate cause of cholera consists in a diminution of the energy of the nervous system. Secondly, that the deprivation of nervous influence thus produced, extends in various degrees to all the func-

tions; and immediately produces the phenomena of the disease." Yes, this is a disease truly that has baffled all their investigation, for they quarrel and call each other all kinds of names, liars, &c., regarding this one complaint, when they are called to consult for the safety of a patient. I fearlessly assert and have given proofs that there is a remedy; condemn not the system then without a trial, for it is unjust to do so. Neglect not then to apply your remedies in the first stage as you would administer food to alleviate hunger directly you found the stomach required it, and when you have food in the house you delay not to satisfy your child's hunger directly it is necessary. I trust to give you a better remedy than that chalk mixture ridiculously put forth by the Committee of Health, and of which facetious *Punch* in referring to the subject recommended the London milk as one and the same thing. It is the duty of all to be provided with an efficient remedy for its attack is sudden and violent, often in the night. This disease has been known to proceed from the use of unripe fruit, causing food to undergo an acetous fermentation, joined to a predisposition from sudden transition from heat to cold. According to many others this disease comes on with nausea, soreness, pain, distension and flatulency in the stomach, and acute griping pains of the bowels, succeeded quickly by a severe and frequent vomiting and purging of bilious matter, heat, thirst, a hurried respiration and a frequent but weak and fluttering pulse. This is the commencement but

the symptoms after a time change a little leaving the patient exhausted and debilitated. I have thus been particular in describing this disease not refusing the testimony even of the faculty themselves. In 1832 I had the first patient who died by cholera in the United States. I was, I thought then, in a pretty fix. I had contrived to get a large building which I had converted into an infirmary where I had my patients under my own especial care and control. I was signally successful in my treatment and the doctors raised an outcry that I ought to be put down. Prescott was the name of the patient who died, and was at the time of his death engaged during the night in preventing the arrival of foreigners into the town till it was ascertained if they were infected with that disease, but was at last seized with it himself. I was not sent for till he was in a collapsed state, his blood had the appearance of rice-water. I did not know him again his countenance had assumed such a blue cadaverous appearance and he was of that hue even to the elbows, or a state of asphyxia, that is the vital principle was suspended from some cause, interfering with the respiration, though it was evident life was not extinct. I could in fact feel no pulse in the wrist, the tongue was cold, and he was to all appearance in a dying state. Dr. H—— and two other doctors called to see him and immediately exclaimed "the man is poisoned." For two or three doctors to make that assertion frenzied him. He died for he was

too far gone for me to do him any good. So anxious were the public to deal summarily and the doctors if possible to ruin me and stop my progress, that a jury was impanelled by sunrise and I was immediately summoned. I remember well I was then getting my breakfast when the myrmidons of justice rushed into my apartment and they had just the courtesy to allow me to take my meal. Almost every shop was closed in order to produce as striking an effect as possible on the minds of the people. I had however two friends on the jury, so I bethought me of a plan. I requested that the witnesses should be examined secretly in order that the doctors might have no chance of tampering with their evidence, and so defeat my endeavours to obtain justice. I was also allowed to be sworn. I was provided with the same medicine that I gave to Prescott to show to the court, and took a good draught of it in their presence, declaring my readiness to drink a quart of it. I told them the classic names of the ingredients which put them in a fright. Eleven of them however gave a testimony against me, and as a natural consequence my practice left me. The inmates of my infirmary were scared away and I was sorely distressed, fearful that that which I had bound my life to, namely the cure of cholera, I should not be able to effect. One misfortune followed upon another for they seldom come alone. I had sent a large box of my medicines to General Lafayette but they were

found too late to be of service, therefore the chance of knowing their capability of effecting the design was frustrated, the cholera having passed that spot two or three days before. I looked over the city of Troy with a feeling akin to despair, greatly fearful of not being able to cure the disease. I at last had a case with the symptoms exactly the same as Prescott's, of a man named William R. Coulson. He said "Doctor do not let me slip through your fingers," and I determined if it were possible he should not. In six hours after he came to me and said "Here I am doctor, judge of me." My audience may imagine what my feelings were on seeing so complete a cure. The man gave me a written certificate explaining the particulars of his case which became of essential service to me. I had to pass doors from which ever and anon issued the appalling cry "there goes the murderer!" My feelings were sensitive and I therefore deeply felt this obloquy, though the latter case gave me a gleam of hope. A person of the name of Stratton next called upon me to say his foreman Adam Teal was seized with cholera. Having hastily put together a packet of medicines I rushed to his rescue and succeeded in cheating death for a time of his prey, obtaining his written testimony also. About this time there was a printing-office to be disposed of, and the thought struck me that as cases were now pressing upon me I would print a bulletin of health in opposition to the one sent out by the city authorities, which was evidently a false statement. I hired an office and engaged a printer.

Also about this time a gentleman of the name of Wood came to me in breathless haste and directed me to go to a certain number in a particular street, on a certain floor, and I was to ask no questions. I accordingly went and found a poor woman dying of cholera. I rushed home with my two assistants and on my way met Joseph Prescott the brother of the hitherto considered murdered man. I exclaimed "Do not speak to me Joseph but come with me, I only want to take a load off your mind." He went with me and the moment I opened the door he exclaimed clasping his hands in astonishment "Doctor my brother died of cholera, now I am convinced of it, and fully acquit you of murdering him." The city bulletin was issued declaring no case of cholera had occurred, but I had now witnesses to prove this was false, and I went to them with my certificates to convince them of it, for even the mayor of the town had lent his name to the lie. This became noised abroad and a reverend gentleman, a benevolent and charitable man, called upon me and said "I sir have money and you have talent, use my purse, we must not let the people die." We started on our embassy of mercy and spent two or three hours a day searching out miserable objects of charity. They were supplied from the purse of this truly philanthropic individual with groceries, soups, and all necessaries, with medicines required, proving himself in fact the saviour of the city. A host rushed to my office daily for the bulletin of health, which alarmed the regulars when I allowed it to be

fully known they had deceived the public, for now I had obtained such abundant proof of the disease, and had become so successful in curing it, that I was able to beat down all opposition. The authorities had appropriated various buildings as hospitals for cholera patients in the town but through our strenuous exertions we prevented the necessity of many going into them. Now though the various symptoms of this disease are alarming they all may be resolved into one focus, namely, the loss of the vital principle of life which is heat. The beginning is coldness, the patient's hands are like marble, in a short time the countenance assumes a cadaverous and ghastly appearance, and he loses his consciousness of existence. While residing in the far south I was myself seized with cholera, and the relation may satisfy you of the efficiency of the means adopted, bearing in mind that if water is to be kept pure the fountain must not be lowered beneath the level of the stream. In cholera the fountain is lower than the stream and the blood which is thrown off the extremities thus becomes stagnant. The globules sink leaving the serum a milky instead of a bright-red colour, the valves having no power the blood is not propelled with its accustomed speed; the fluids therefore all run back into the intestines. The proximate cause of the disease as I said before is involved in obscurity. That it is a poison there can be no doubt, a sort of miasma affecting the atmosphere, unhealthy exhalations

arising from the earth and infecting moist and damp localities. Sometimes it attacks healthy districts also, therefore science is completely at fault and has never been able to unravel the mystery. Knowing the predisposing causes of such disease it behoves every one so to live as not to render himself an easy prey to its attack. I am satisfied it is not contagious for I have been exposed four weeks together to its influence, and for that space of time was hardly ever off my saddle. Late suppers is one predisposing cause from which I would guard you. I for my part take none, in fact, but two meals a day, and that I find sufficient for the toil and labour I have to undergo. True I eat a proportionate quantity and that I take good care shall be of the most nutritious and satisfying kind. I do not, like too many of my fellow-creatures load my stomach with an heterogeneous mass of indigestible materials, but select carefully and use judgment in that important matter, knowing well what suits my system as it is the duty of all thus to ascertain if he desires his own health. Orton in writing of cholera imagines it to be a sudden falling off in the energies of the system. There is not a power equivalent to oppose the enemy attacking the citadel. I was seized with cholera as I stated, one afternoon and on my arrival at home decided upon taking a dose of composition powder, composed as stated in the "Guide" of bayberry, pinus canadensis, ginger, cayenne, and cloves. I commenced vomiting and was plagued with rice-

water alvine discharges. A friend calling did not recognise me I was so soon reduced to a mere skeleton, nor was my pulse to be felt at my wrist. I was like the case I narrated, blue to my elbows, and could not speak but in a whisper, expecting every hour I should not last to the end of it. A minister who had seen me told some of my friends he met at a distance that doubtless by that time I was dead, and my assistant despondingly inquired what he should do for me for he like myself hardly dared to hope. I made a desperate effort determined to make a last trial, and directed to be procured for me two heaping tea-spoonsful of the lobelia seed; in connection with this I took cayenne pepper, valerian, raspberry-leaves, &c., also the stomach bitters, of which I took a pint. I directed this mixture also to be injected into my bowels. In less than a minute, I found it had grasped round my liver, as though in a vice, and there seemed to be an increase of the screw every minute, in fact I suffered greatly, so much so that my senses appeared leaving me. I remember in doleful accents exclaiming "And must I endure all this and then die?" This lasted three or four minutes I then commenced vomiting bile, I whispered to my attendant and said "I shall live, I shall not die, go and tell the servants I shall live." In three days after this attack I was riding in my carriage. To the lobelia, stimulants, &c., I owed my life. I would in recommending the cayenne strongly urge upon you that you see to its purity,

and are not contented with the gross mixtures of cayenne and logwood, or that obtained from Chili. In conclusion I would recommend the free use of the cholera also the lentil powders. The former is composed of very powerful stimulants, tonics, and astringents, giving a proper tone to the stomach of a healthy person as well as meeting the case of disease; the latter is beneficial and affords great nutriment in debilitated constitutions without turning acid upon the stomach, as is the case with too many of the nostrums of this our day. The plan best to be adopted with the patient seized with the cholera is to use a vapour-bath, to restore warmth to the body and then having prepared the stomach previously with the powders before referred to, the lobelia emetic should be administered as directed in the "Guide to Health."

THE END.